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ABSTRACT

A growing body of research has documented the detrimental effects of changing schools on students' academic performance. One role of the federal Migrant Education Program is to implement strategies to redress migrant students' educational disruption. This report examines various approaches used to promote continuity of instructional service for migrant students. Case studies were carried out on four groups of two or three districts each that share migrant students over the school year ("trading partners"). The case studies revealed that the trading partners shared a set of common themes that led to the development of successful solutions for migrant students. These themes include a shared vision of the role of migrant education, emphasis on program alignment between trading partners, use of technology to transfer information between partners or provide distance education to students, and interpersonal relationships across districts. The case studies also displayed consistent conditions that led to educational discontinuity for migrant students: lack of timely and reliable information about student achievement levels and educational needs, interstate and interdistrict differences in curriculum requirements and instructional methods, and student conflicts between school and work. Secondary credit accrual poses the most critical challenge for interstate coordination; flexible courses of study for secondary students and strategically placed staff who "negotiate" coordination between students' educational experiences and graduation requirements are needed. Appendices present the case studies, which describe each trading partner, specific problems migrant students faced at each site, how these problems provoked innovations, each site's solutions, and coordination strategies implemented by the trading partners. (Contains 9

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THE SAME HIGH STANDARDS FOR MIGRANT STUDENTS: HOLDING TITLE I SCHOOLS ACCOUNTABLE

Volume III: Coordinating the Education of Migrant Students: Lessons Learned from the Field

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FINAL REPORT

2002

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VOLUME III: COORDINATING THE EDUCATION OF MIGRANT STUDENTS: LESSONS LEARNED FROM THE FIELD

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Alexander Goniprow
Project Director

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EXECUTIVE SUMMARY

Background

A growing body of research has documented the detrimental effect that changing schools has on students' academic performance. Migrant students are among the most mobile of all students, since they must change schools to accompany their families as they move to pursue seasonal agricultural employment. One of the roles of Title I, Part C, the Migrant Education Program (MEP), is to implement strategies to redress students' educational disruption. To contribute to the knowledge base on effective practices for promoting educational quality and continuity for migrant students, the U.S. Department of Education's Planning and Evaluation Service supported this study, conducted by researchers at the George Washington University's Center for Educational Equity and Excellence, in cooperation with Westat, Inc.

The purpose of this study is to illustrate a range of approaches used to promote continuity of instructional service for migrant students and to identify promising practices tailored to promote instructional continuity. The study entailed case studies of district migrant education programs, chosen on the basis of nominations from state directors. Four groups of two or three districts that share students who move back and forth between them were chosen for study (referred to as Trading Partners).

The researchers selected four cases for the study:

Case Study One: Weslaco Independent School District, Weslaco, Texas
& Pasco School District, Pasco, Washington

Case Study Two: Eagle Pass Independent School District, Eagle Pass, Texas
& Sidney School District, Sidney, Montana

Case Study Three: Donna Independent School District, Donna, Texas; Van Buren Intermediate School District, Lawrence, Michigan; & Manatee County Office of Education, Bradenton, Florida

Case Study Four: Yuma School District #1, Yuma, Arizona
& Alisal School District, Salinas, California

A member of the research team visited each site between June 1998 and December 1998. The researchers conducted interviews with key staff; observed service delivery and coordination mechanisms; and inspected relevant documents, which included available achievement data.

This report is a cross-case report on the findings relative to the six research questions and illustrates several cross -cutting themes. Appendix A contains detailed case studies.

KEY FINDINGS

- **The case studies revealed that the Trading Partners shared a set of common themes that led to the development of successful solutions for migrant students: shared vision of the role of migrant education, emphasis on program alignment between trading partners, use of technology, value of personal relationships, and importance of leadership.**

  — Across the case study sites, migrant educators shared a vision about their goals for their shared students and the role of migrant education. This vision embodied the notion that migrant students had unique needs and that the MEP should supplement the basic education program to meet those needs.

  — All of the case study sites were committed to aligning local instruction between programs that shared migrant students. In particular, they were committed to aligning with the students' home-base schools for curricular content and course requirements.

  — The use of technology provided solutions to the problems of accessing information and providing instruction to difficult-to-reach students. Technology was used to transfer information on students' academic records between trading partners, provide individualized instruction, and provide access to another state or district's assessments and standards.

  — Personal meetings and relationships furthered solutions for migrant students in all sites. They helped the districts to understand each other's needs, policies, and problems in educating migrant students.

- **The case studies displayed a consistent set of conditions that led to educational discontinuity for migrant students.**

  — There was a lack of timely and reliable information about students' achievement levels, immediate enrollment history, and educational needs.

  — Differences in school curriculum requirements and instructional methods between districts and states sharing migrant students (e.g., block vs. traditional schedules, language assistance programs, and graduation requirements) led to instructional discontinuity and credit accrual problems for secondary migrant students.

  — Migrant students experienced conflicts between the need to work and to attend school.

- **Migrant education programs focused on four areas to promote the continuity of education for migrant students: alignment of district policies, improved student information exchange and access, staff resources to promote credit accrual, and opportunities for supplemental instruction.**

  — Some examples of alignment policies included the following: LEP students were placed in the same type of English acquisition program as their homebase school; trading partners compared their individual language assessments scores to place migrant students in the same types of coursework; and trading partners agreed on common grade placement policies.

  — The districts implemented information systems including the Texas Migrant Interstate Project, the New Generation System, the Red Bag Transfer Packet System, and an email system to improve student information exchange and access. These systems relied on a combination of information technologies and technical assistance and staff support.

  — To promote secondary credit accrual, particular staff members were charged with communicating with other districts to determine appropriate courses for credit accrual purposes, calculating and awarding partial credit, and following up on attendance data, grades and credit accrual information sent to other districts.

  — Two basic strategies were used in developing supplemental educational opportunities. The first strategy entails flexible courses of study that assist secondary students to accelerate course completion or to finish incomplete courses. The newest versions of these courses use technology (e.g. desktop computer labs, portable laptop computers, and satellite technology) to deliver instruction. The second strategy provided migrant students with additional instructional time, either in the summer, in the evening, or during the school day.

There was limited evidence on the effectiveness of the innovations, but most of them are fairly new or are still being developed.

I. BACKGROUND

Purpose of the Study

The Migrant Education Trading Partners Study was requested by the U.S. Department of Education's Planning and Evaluation Services and contracted through Westat and the Center for Equity and Excellence in Education at The George Washington University. The study examined the coordination mechanisms used between migrant education programs in different states and school districts to mitigate and overcome the negative effects of educational disruption caused by migration in pursuit of seasonal work in agriculture. The study's design encompassed a set of case studies of migrant education entities that had promising coordination mechanisms in place to overcome educational disruption. Such entities were referred to in the study as "trading partners."

The study had two primary objectives:

1. To illustrate a range of approaches used to promote continuity of instructional services for migrant students; and

2. To identify promising practices tailored to promote instructional continuity.

The study's purpose was to share promising practices with the field and to inform it of innovations that would be useful to both policy and practice.

Background and Selected Review of the Literature

The United States Congress first authorized federal support for migrant students in 1966 through an amendment to the Elementary and Secondary Education Act (ESEA) of 1965; that support was most recently reaffirmed through enactment of Title I, Part C, of the ESEA, as amended by the Improving America's School's Act (IASA) (PL 103-382). The legislation defines a migrant child as one:

> ...who is, or whose parent, spouse, or guardian is, a migratory agricultural worker, including a migratory dairy worker, or a migratory fisher, and who, in the

> preceding 36 months, in order to obtain, or accompany such parent, spouse, or guardian in order to obtain, temporary or seasonal employment in agricultural or fishing work; has moved from one school district to another; in a State that is comprised of a single school district, has moved from one administrative area to another within such district; or resides in a school district of more than 15,000 square miles, and migrates a distance of 20 miles or more to a temporary residence to engage in a fishing activity (Sec. 1309 (2)).

The law establishes that the purpose of assistance given to migrant students pursuant to Title I, part C, is to help them, among other things, to:

> overcome educational disruption, cultural and language barriers, social isolation, various health-related problems, and other factors that inhibit the ability of such children to do well in school, and to prepare such children to make a successful transition to postsecondary education or employment and ensure that migratory children benefit from State and local systemic reforms (Sec. 1301(4)(5)).

The law also states clearly that funds allocated to migrant education are supplemental and should not duplicate services or resources already provided by an educational agency. The federal government's role in migrant education is to administer grants to state education agencies, which then distribute the funds according to their own policies and procedures and in ways that best address the needs and service priorities of migrant children.

Migrant students' profound and varied needs have been documented in both journalistic and scholarly literature. Helge (1991) listed difficulties that beset migrant children and their families, including dropout rates, low parent literacy, poverty, and low academic achievement. Rumberger and Larson (1998) cited findings that students who have changed schools even once within two years score significantly lower on achievement tests, and mobility by itself appeared to account for half of the differences in achievement. Even when controlling for poverty, Rumberger and Larson found that even one non-promotional school change doubled the likelihood of not completing high school.

Serrano (1983) listed eight specific migrant student problems: "lack of credit reciprocity, lack of fractional credit transfer, lack of course continuity, language barriers, inconsistent grade placement, inaccessible vocational and special programs, inaccessibility of mandated

competency tests, and absence of alternative instruction" (p. 19), with mobility identified as the key disruption factor, even for "return to the same schools in a routine way." (p. 9).

Migrant education programs carry out their mandate to remedy a wide variety of student needs in many ways, ranging from pre-school to summer programs to night school. They also provide an array of social and health services. However, for these efforts to be effective, they need to be coordinated with the other regular and supplemental education and health services—both within school districts and across them.

For this reason, within the U.S. Department of Education, the migrant education program statute specifically calls for coordination activities. During the 1980s, the Office of Migrant Education funded numerous coordination projects under Section 143 of the existing ESEA, Migrant Education Interstate and Intrastate Coordination. These projects had varying degrees of success (Adelman & Cleland, 1987).

The best-known federally funded coordination effort was the Migrant Student Record Transfer System (MSRTS). Serrano (1983, p. 11) described MSRTS as the "first massive interstate cooperative effort to address mobility and continuity." MSRTS was a computerized migrant student record system; records clerks at local migrant programs entered student data that included their test scores, immunizations, and placements in grade for transmittal to the central data storage site in Little Rock, Arkansas. A migrant student's new school could request the information from MSRTS in order to save time assessing the student for initial instructional placement. The Migrant Student Record Transfer System also included a Credit Accrual and Exchange Section for high school students to improve credit transfer for graduation.

The success of MSRTS in expediting migrant student information has been argued among migrant educators. The Interstate Migrant Education Council (IMEC), (1992), for example, found increases in the identification of migrant students for special education services from 1980 to 1990 and said that these increases "may be attributable, in part, to migrant educators' awareness, the inclusion of the special education code as part of the MSRTS training, and heightened understanding among special educators" (p. 8). However, IMEC also concluded that "any analysis of MSRTS data is bound to yield tenuous, fairly inconclusive information" (p. 11). Due to the mixed results of MSRTS, the contract was terminated in 1995 and it was discontinued.

The federal government reaffirmed its interest in coordination activities among educational agencies with the enactment of the Improving America's Schools Act (IASA). This law acknowledges that it is important to coordinate student information and records exchange, but individual states or consortia of states are left to devise their own systems. Currently, few of these systems have the capacity to transfer or provide appropriate users the student information they need.

Migrant education can play a role in articulating common services between educational agencies, but the manner in which that role is played can vary and probably must vary according to the situation. Most, if not all, supplemental programs have encountered problems in coordinating their services with those provided by the basic educational program. While the term "coordination" has been used to describe the role in a broad sense, the word may communicate different things to different people and encompass several different levels of mutual effort.

Walp and Walmsley (1989) described congruence between programs "in terms of the coordination between classroom and remedial instruction" (p. 364) within a school or district. Allington and Johnston (1986) also discussed the importance of coordination between different programs that serve the same children in order to achieve curricular congruence; they emphasized congruence in what is to be taught and the methods of instruction.

Stone (1993) defined coordination as "the additional procedures used by people to do an activity with others" (p. 6). The procedures include "how people find each other, arrange to carry out an activity together, locate a suitable setting, schedule the activity, and get there on time" (p.6). He posits three major categories of coordination procedures. The first, termed recurrent routines, are customary procedures that carry out well-established routines (e.g., the monthly staff meeting). The second type of coordination procedures are premised on "centrally directed control of people, activities, and resources" (e.g., military maneuvers or assembly line production). The third type is "negotiated" procedures, whether it be an informal arrangement or a well-specified contract (e.g., planning family weekends together or discussing how to improve work conditions).

All three sources of coordination procedures need to be in place to coordinate effectively interstate educational services. Recurrent routines are valuable because daily decisions about every act of coordination are disruptive and inefficient. Centrally directed coordination, in turn, makes it possible to set up complicated new routines and to select, refine, optimize, and preserve existing routines. The main advantage of negotiated coordination "is that it provides alternatives

when routines conflict or are unsatisfactory, or when top-down, centralized control is not appropriate" (Stone, 1993, p. 11).

Kadel (1992) offers a complementary framework by distinguishing cooperation from coordination and collaboration, explaining that cooperation occurs when agencies have an "informal understanding" that they will help each other without "losing their autonomies"; coordination is seen when a few agencies work on a specific task together but have a limited relationship; and collaboration infers that resources and authority are shared to a considerable degree (pp. 6-7).

Melaville and Black (1991) also differentiated between cooperation and collaboration. In a "cooperative arrangement at the service delivery level, partners help each other meet their respective organizational goals" (p. 14). In contrast, "collaborative partnerships establish common goals. In order to address problems that lie beyond any single agency's exclusive purview, but which concern them all, partners agree to pool resources, jointly plan, implement, and evaluate new services and procedures, and delegate individual responsibility for the outcomes of their joint efforts" (p. 16).

The simple transfer of student information is a cooperative activity rather than a coordinated effort among school districts and the states. However, exchanging student records for credit accrual purposes certainly could be viewed as coordination. More intensive efforts that require resource allocation, such as providing facilities and personnel for another state's curriculum, might qualify as collaboration. However these terms are defined, reaching consensus about the precise meanings of cooperation, coordination, and collaboration may not be as critical as clearly defining the roles of the agencies involved, the extent of their involvement, and the extent of their resource and time commitments.

Migrant education is cross-jurisdictional by its very definition, between school districts and between states. Local programs operate within the parameters of higher jurisdictions, from the district level to the federal government, and need the support of state and federal efforts to execute successful coordination and collaboration.

Conditions must favor coordination and collaboration for agencies to succeed in achieving mutual goals. Melaville and Black described the environment for change: "The most supportive climate is one in which the solution to a problem with multiple causes and consequences...is a top priority of the community, key decision makers, and service providers,

and where previously established working relationships exist among potential partners" (p. 20). Also required is a "communication and problem-solving process participants use to establish goals and objectives, agree on roles, make decisions, and resolve conflicts. The process establishes the working relationships and defines the operational rules necessary to guide the partnership initiative" (p. 21). Kadel pointed out that one of the roles to be agreed on has to do with leadership; the cooperating partners must reach agreement on who will lead.

This study describes how migrant education programs in local education agencies have found ways to promote the continuity of their agencies' instruction for migrant students. It shows how their efforts have dealt with or continue to deal with critical issues: leadership, turf, definition of roles, resources, cooperation, coordination, collaboration, and communication. It also illustrates how the programs that were the foci of the study functioned in the context of local and state hierarchies.

Study Questions and Methodology of the Study

The research team identified six research questions to guide the study's primary objectives:

1. What were the conditions that led to discontinuity of education for migrant students?
2. What were the problems, issues, and concerns at the school site level that resulted from discontinuity of education?
3. How and why was a particular approach adopted as a strategy to promote continuity of education?
4. What range of approaches are used in migrant education programs to promote continuity of education for migrant students, and how are those approaches implemented?
5. What impact have these innovations demonstrated, and what problems or obstacles were encountered in implementing these approaches?
6. What cross-cutting themes emerged from the study?

In order to identify sites to comprise the case studies, all State Directors of Migrant Education received a letter in January, 1998 asking them to nominate sites within their states for inclusion in the study. They were given the following criteria to guide their nominations:

- The site should have coordinated with another site for at least three years in order to promote continuity of educational services for the migrant students they share.
- The site should have in place identifiable coordinating mechanisms (e.g., shared curricula, teacher exchange), which promote continuity of services.
- The site should serve significant numbers of migrant students which are shared with the trading partner.
- The site should have demonstrated success in prompting positive outcomes for migrant students.

Trading Partners Included in each Case Study					
Case Study One:	Weslaco Independent School District, Weslaco, Texas	&	Pasco School District, Pasco, Washington		
Case Study Two:	Eagle Pass Independent School District, Eagle Pass, Texas	&	Sidney School District, Sidney, Montana		
Case Study Three:	Donna Independent School District, Donna, Texas	&	Van Buren Intermediate School District, Lawrence, Michigan	&	Manatee County Office of Education, Bradenton, Florida
Case Study Four:	Yuma School District #1, Yuma, Arizona	&	Alisal School District, Salinas, California		

A researcher visited each site between June 1998 and December 1998. Researchers visited sites that receive migrant students primarily in the Summer months, the time of highest migrant student enrollment. Researchers visited sites that primarily send migrant students during the regular school year. These visits were timed so that the researchers could observe the impact of the arrival of large numbers of migrant students and also determine the degree to which educational services were disrupted at the sites of origin. The same researcher who visited the receiving site also visited the corresponding sending site.

During these site visits, the researchers gathered information through a variety of means, including interviews with key personnel and inspection of relevant documents. They also observed services as they were delivered to students. Semi-structured interviews formed the primary source of information. During the course of the site visits, it became apparent that a large part of the story of migrant education coordination could be found in the context of systems set in place by state agencies acting alone or in partnerships, rather than in the reciprocal activities of local education agencies. Therefore, the research team also investigated those systems that seemed to provide programmatic "glue" to local efforts. Those systems included the Texas Education Agency's Division of Migrant Education (TEA), the Texas Migrant Interstate Program (TMIP), the Florida Migrant Interstate Program (FMIP), the Texas Regional Education Service Centers I and XX (for the New Generation System (NGS) and Project SMART respectively), Project Estrella, the University of Texas Migrant Program, and the Florida PASS Program.

Researchers interviewed migrant program coordinators, directors of federal programs, counselors, teachers, migrant home visitors, school principals, technical support personnel, personnel associated with interstate coordination projects, growers, and migrant students and their parents. The individuals interviewed were too numerous to list in this study; moreover, they were assured confidentiality to encourage candor. However, the primary contact persons for each site and project are listed in the appendix.

Each case was analyzed from the perspective of the educational problems migrant students faced and the districts' strategies for resolving those problems. The districts' solutions, which form the heart of this study, were analyzed according to the levels of coordination they required (as defined by Kadel and Melaville and Black), who distinguished among cooperation, coordination, and collaboration. However, the researchers also found cooperative mechanisms that receiving districts use which are locally initiated or "unilateral" adaptations to their own services to provide a match to the migrant students' home district. Since those accommodations figured prominently in the cases that formed this study, the "unilateral" level was added to the coordination continuum for purposes of analysis. The researchers made every effort to distinguish coordination in its broader sense (referring to the whole continuum) from its narrower sense (as defined above).

Organization of the Report

Chapter Two of this volume consists of the cross-case analysis and findings relative to the six research questions. It provides a discussion of the cross-cutting themes that relate to coordination. Chapter Three presents conclusions and implications drawn from the cross-case analysis. The detailed case studies are presented separately in Chapter One of Volume II of this report. That chapter presents the four cases and describes the promising practices implemented to enhance the continuity of education for migrant children. It provides important contextual information on the circumstances of educational disruptions and the details of the coordination mechanisms that were adopted. Volume II, Chapter Two describes the special coordination resources the sites drew upon to support their local solution strategies.

II. STUDY FINDINGS: CROSS-CASE ANALYSIS

In this chapter, we discuss the findings of the Trading Partners Study as they relate to each of the study's six research questions.

Conditions Leading to Discontinuity of Education for Migrant Children

Exhibit 2.1 Conditions That Led to Educational Discontinuity for Migrant Students	
Condition	Cases Reporting Condition
Lost instructional time due to early withdrawal, while families relocated, and due to late re-entry	Weslaco – Pasco Eagle Pass – Sidney Donna – Van Buren – Manatee Yuma – Alisal
Lack of information to place students properly	Weslaco – Pasco Eagle Pass – Sidney Donna – Van Buren – Manatee Yuma – Alisal
Loss of course credits due to lack of information about courses taken elsewhere or inappropriate placements	Weslaco – Pasco Eagle Pass – Sidney Donna – Van Buren – Manatee
Missed opportunities to prepare for and take the TAAS	Weslaco – Pasco Eagle Pass – Sidney Donna – Van Buren – Manatee
Different high school course offerings	Weslaco – Pasco Donna – Van Buren – Manatee
Conflicts between need to work and to attend school	Weslaco – Pasco Donna – Van Buren – Manatee
Dissimilar language assistance programs for LEP migrant students	Weslaco – Pasco Yuma – Alisal
Dissimilar grade placement policies	Weslaco – Pasco
Different graduation requirements between schools and states	Weslaco – Pasco

The cases displayed in Exhibit 2.1 show a consistent set of conditions that led to educational discontinuity for migrant students:

- Instructional time was lost due to leaving school before the end of the school year, time in transit, and returning to school after the beginning of the school year;
- There was a lack of timely and reliable information about students' achievement levels, immediate enrollment history, and educational needs (e.g., level of English proficiency); and
- Differences in school curriculum requirements and instructional methods between districts and states sharing migrant students (e.g., block vs. traditional schedules, language assistance programs, and graduation requirements) led to instructional discontinuity and credit accrual problems for secondary migrant students.

Educational Consequences of Discontinuity

Migrant students faced the same problems at different sites that resulted from discontinuity in their education due to their migrant status:

- Their academic achievement was lower than that of other students.
- They had problems building on either the native language or the language of acquisition due to placement in different kinds of language assistance programs.
- They lost credits because they frequently were not placed in appropriate classes, especially at the high school level.
- They became discouraged because of their lack of high school credit accrual for on-time graduation which, in some cases, led to dropping out.
- They sometimes failed to attend school at all.

Selection of Strategies to Promote Coordination across States

Cases examined in the study provide clear examples of efficient and direct responses to problems. Pasco School District opened a night high school because older migrant students need to work in the morning; it placed LEP migrant students in sheltered English classes because they would not continue studying in Spanish when they returned to the family home; its counselors communicated intensively with counterparts in districts such as Weslaco Independent School District because that is the surest way to get information needed for appropriate class placements. Yuma School District #1 and Alisal School District inaugurated e-mail-based information exchange because timely information was the most critical need; they determined equivalence of their language proficiency assessments because they needed to understand each other's language proficiency scores to make immediate decisions about program placement. Migrant staff from Van Buren Intermediate School District in Michigan visited schools in Texas to find out more about their migrant students and also to ascertain to whom they should speak in order to get that information. Donna Independent School District, Eagle Pass School District, Weslaco Independent School District, and Alisal School District began extended day, extended week and extended year programs to make up the time migrant students were not in school.

The strategies that were available to the migrant programs were often those that were created beyond the local program level as universal responses to common problems. Several of the programs used the Portable Assisted Study Sequence (PASS), a program that was developed in interstate collaboration as a solution to the problem of credit accrual. Sidney, Montana Summer Migrant Education Project; and Eagle Pass, Donna, and Weslaco, I.S.D.s in Texas adopted technology-based solutions such as Project SMART, Project Estrella and NovaNET, which resulted from efforts among state directors and regional consortia to collaborate for the good of their migrant students. Project SMART (Summer Migrants Access Resources through Technology) is a national distance learning instructional program that is broadcast via satellite from Texas for eight weeks over the summer. Project ESTRELLA supports interstate coordination through the use of laptop computers. NovaNET is a nationwide computer-based curriculum. Several of those districts also utilized the New Generation System (NGS) as a solution to the problem of timely information (with mixed results), but NGS was made available to the districts because of collaboration among a consortia of state directors following the termination of MSRTS. NGS is a comprehensive database of education and health information on more than 200,000 migrant children that can be accessed by subscribers through the Internet. Pasco was able to establish its pre-registration system in Texas because growers had set in place their own early hiring system. The Texas Education Agency (TEA) was able to develop Project

SMART because Texas's Education Service Center (ESC) 20 had already developed the technology through related distance learning applications.

Promising Approaches Used to Enhance Continuity of Instruction

Exhibit 2.2	**Range of Promising Approaches Used to Enhance the Continuity of Instruction**
1.	Alignment of District Policies
2.	Improved Student Information Access and Exchange
3.	Staff Resources to Promote Credit Accrual
4.	Opportunities for Supplemental Instruction

Four basic approaches were identified to enhance the continuity of instruction: 1) alignment of district policies, 2) improved student information exchange and access, 3) staff resources to promote credit accrual, and 4) opportunities for supplemental instruction.

The alignment of district policies and improved information exchange systems were strategies that were favored to, among other things, surmount the lack of timely and reliable information about migrant students. Strategically placed migrant education program staff was key in helping migrant students overcome problems due to "differences in school curriculum and in difficulties of accruing course credits." Not surprisingly, the problem of "lost instructional time" was addressed by a wide array of opportunities for migrant students to receive supplemental instruction.

Alignment of District Policies. To reduce instructional discontinuity for migrant students who move back and forth between the partners in two cases (Weslaco-Pasco and Yuma-Alisal), decisions to align the educational policies were made. In the Weslaco and Pasco case, for example, Pasco adjusted its policy concerning language of instruction and grade placement. Coordination of this type, once the decisions are made, is very efficient as it becomes a "recurrent routine" (Stone, 1993) that staff automatically implement on behalf of migrant students.

Exhibit 2.3 Examples of "Alignment of District Policies" as a Means of Enhancing Continuity of Instruction	
Solutions	Site(s) Reporting Solution
Limited English Proficient students placed according to homebase school's practices	Weslaco – Pasco Yuma - Alisal
Agreement on grade placement policies	Weslaco – Pasco
Determined equivalencies of local language assessment instruments and information to ensure mutual understanding	Yuma – Alisal
Decision not to adopt a year-round school schedule	Yuma

Improved Student Information Access & Exchange. This study documented five very different strategies for exchanging student information. The most frequently mentioned strategy was the use of the Texas Migrant Interstate Program. Since its inception in 1981, the Texas Migrant Interstate Program (TMIP) has provided technical assistance to migrant education programs across the United States. TMIP facilitates interstate coordination of services to maximize the full use and delivery of available resources to migrant students. TMIP's primary goal "is to increase the graduation rate of migrant students by promoting coordination/cooperation of migrant education programs that provide services to migrant students."

The staff of TMIP often serve as the strategy of last resort for migrant educators who are having difficulty getting information about a particular migrant student. In contrast, three evolving information systems (i.e., NGS, Red Bag, and Teacher-to-Teacher e-mail) were documented as a means of gaining easier access to student data or exchanging student information. Finally, the pre-registration process used by Pasco is an uncommon but seemingly effective method of generating information that facilitates the timely enrollment and proper placement of migrant students in the district's schools.

Exhibit 2.4 Examples of "Improved Student Information Access & Exchange" as a Means of Enhancing Continuity of Instruction	
Solutions	Site(s) Reporting Solution
Texas Migrant Interstate Program	Weslaco – Pasco Eagle Pass – Sidney Donna – Van Buren – Manatee
New Generation System	Weslaco Eagle Pass – Sidney Donna
Red Bag (Green Bag) Transfer Packet System where Texas puts all pertinent documentation—transcripts, withdrawal slips, test scores and vaccination and medical information—into a red bag which the students and families pick up from the school before leaving Texas.	Weslaco – Pasco Eagle Pass – Sidney
E-mail transfer of student information using Student Identification Cards with e-mail addresses of teachers and a electronic student record "template."	Yuma – Alisal
Pre-registration program to facilitate enrollment in receiving schools	Weslaco – Pasco

Staff Resources to Promote Credit Accrual. In each of the three cases where the partners were concerned with helping secondary migrant students graduate, strategically placed staff (e.g., guidance counselors, migrant resource teachers, or program specialists) were a common and crucial resource needed to facilitate credit accrual. Given the nature of the problem (e.g., differences in school curriculum requirements, partial credits from multiple schools/programs, and the high caseloads of most regular guidance personnel), additional staff are needed to attend to and negotiate coordination between the education received by migrant students and the requirements of the school, school district, and state from which the student intends to graduate. Information tools and strategies (such as those discussed above) are important, but without a person who uses the data appropriately, the primary goal of credit accrual and graduation will not be achieved.

Exhibit 2.5 Examples of "Staff Resources to Promote Credit Accrual" as a Means of Enhancing Continuity of Instruction	
Solutions	Site(s) Reporting Solution
Staff who are charged with communicating with other districts to determine appropriate courses for credit accrual purposes	Weslaco – Pasco Eagle Pass – Sidney Donna – Van Buren – Manatee
Staff who calculate, award and/or accrue partial credit	Weslaco – Pasco Eagle Pass – Sidney Donna – Van Buren – Manatee
Staff who send and follow-up on attendance data, grades, and credit accrual information sent to other districts	Weslaco – Pasco Eagle Pass – Sidney Donna – Van Buren – Manatee
TMIP and Annual Credit Accrual Workshop	Weslaco – Pasco Eagle Pass – Sidney Donna – Van Buren – Manatee
Alternative Graduation Plan	Pasco

Opportunities for Supplemental Instruction. Two basic strategies emerge from the array of supplemental educational opportunities that are supported by Migrant Education Programs to combat the problem of lost instructional time. In the first strategy, flexible courses of study are developed that assist secondary students as they work to accelerate course completion (before withdrawing from school) or to finish incomplete courses (while on the road or upon return to the home base school). The newest versions of these flexible courses of study often use technology (e.g., desktop computer labs, portable laptop computers, and satellite technology) to facilitate the delivery and individualization of the courses of instruction. Older formats (e.g., correspondence courses and teacher-made study packets) are perhaps less costly and more widely available. They also may be considerably less effective. A key for these strategies in moving from "promising" to "effective" is support for an on-going process to improve continuously the quality of materials and align them to the appropriate content standards.

In general, the second strategy revolves around developing a set of "environments" in which the instructional services are delivered. Almost all of the school districts supported summer programs as a place and time in which instructional services could be provided to migrant students of all grade levels. Originating Texas school districts, for example, implemented in-school tutorial programs to provide a time and space for secondary-level migrant

students to work on their independent courses of study or prepare for the TAAS. Similarly, the receiving states often supported "evening programs" for secondary youth to complete coursework. Project Estrella provides a "virtual" classroom to migrant students—wherever they may reside—as long as they can access a telephone line.

Many of the supplemental educational opportunities were developed by TEA or by TEA in partnership with other states. TEA has accepted its leadership role and assumed a large share of the responsibility to reduce the harmful effects of educational discontinuity on students who migrate from Texas. It has supported strategies such as TMIP, University of Texas correspondence courses, PASS, Project SMART, NGS, the Red Bag, NovaNET, and Out-of-State TAAS testing—all to make it easier for a state receiving migrant students to coordinate with Texas schools. Adapting local policies, programs, and procedures is a responsibility that is incumbent on the states receiving migrant students, but Texas has made it easier for them if they choose to coordinate services by adopting and implementing solutions supported by Texas.

Exhibit 2.6 Examples of "Opportunities for Supplemental Instruction" as a Means of Enhancing Continuity of Instruction

Solutions	Site(s) Reporting Solution
Summer Program (includes Pasco and Yuma that pay tuition costs for migrant student enrollment in district's summer program)	Weslaco – Pasco Eagle Pass – Sidney Donna – Van Buren Yuma
Portable Assisted Study Sequence (PASS) is a nationally recognized program offering mobile secondary students an alternative means of earning full or partial course credits through the completion of self-directed courses.	Weslaco – Pasco Eagle Pass – Sidney Donna – Van Buren – Manatee
University of Texas (UT) correspondence courses	Weslaco – Pasco Eagle Pass – Sidney Donna – Van Buren
Texas Assessment of Academic Skills (TAAS) preparation	Weslaco – Pasco Eagle Pass – Sidney Donna – Van Buren

Exhibit 2.6 (continued)	
NovaNET Labs and other Computer-based Instruction Tutorials	Weslaco – Pasco Eagle Pass – Sidney Donna
Night High School or Evening Classes/Programs for Secondary Students	Weslaco – Pasco Sidney Van Buren
Project SMART	Weslaco – Pasco Eagle Pass – Sidney
Project Estrella	Weslaco Eagle Pass – Sidney
In-School Tutorial Programs (to accelerate academic progress and/or to help students catch up on worked missed, includes UT credit-by-exam courses, teacher-made study packets)	Weslaco Eagle Pass Donna
Out-of-state TAAS administration	Pasco Sidney Van Buren
Academic counseling services-ESL services	Yuma – Alisal
After-school/Saturday tutorials	Eagle Pass Alisal Weslaco
Inter-session study packets	Alisal

Levels of Coordination Observed. The methods through which each of the individual strategies were implemented also can be considered in terms of the levels of coordination outlined earlier in this report. Each of the cases presented numerous examples of unilateral accommodations for migrant students; those accommodations took many forms, some of them requiring systemic changes at the institutional level. For example, Weslaco, Eagle Pass, and Donna have implemented special guidance counseling and tutorial programs in recognition of the fact that many of their students simply are not present for significant portions of the school year.

Van Buren ISD offers a summer program, which reflects a unilateral decision on its part to provide remedial instruction and enrichment to migrant children during the time they are in residence. Pecan Grove Elementary School in Yuma, Arizona decided not to adopt a year-round school calendar out of consideration for its migrant students. If a migrant student from Texas is not likely to pass the TAAS, Pasco tries to find ways to graduate them from Washington. In implementing each of these solutions, no direct interaction with the trading partner is absolutely necessary.

Cooperation often means the sharing of information in order to make local decisions and/or to help another district with their tasks. Weslaco and Pasco, Donna and Van Buren, Eagle Pass and Sidney, all have staff that calculate partial credit; they also work to accept each other's credits and grades on the basis of what they know about each other's course content and grading systems. Often this cooperation was facilitated by TMIP and ESC-1, because they have organized visitations and face-to-face meetings for staff. Migrant staff from Michigan have visited schools in Texas and Florida to gather information on migrant students and establish relationships with other migrant educators. The visits were initiated unilaterally, but they were made possible through the information resources of TMIP and FMIP, and the cooperation of local district staff. Efforts in Pasco and Sidney to support the "red bag" transfer packet system also characterize cooperative behavior. At a minimum, these practices require more than an awareness of the migrant students' needs: They require cooperation in information-sharing to learn what kinds of local actions are needed.

Activities that fit Kadel's (1992) definition of "coordination," which is one point along the broader continuum of activities generally subsumed under coordination, include the joint efforts of districts (both districts of origin and districts that receive migrant students) working to help migrant students start and complete PASS programs, University of Texas correspondence courses, and TAAS preparation activities. Communications between districts to resolve and award course credits require interactions and negotiations that create coordination. District agreements to adopt a consistent grade placement policy and place LEP students in language assistance programs according to the home-base school's practices are also examples of coordination. Melaville and Black (1991) would place these practices at a higher level than cooperation because in each case the districts made "substantial changes in the basic services they provide."

The Yuma-Alisal case provides a clear example of district-level collaboration. Personnel from both districts have met and shared information in an ongoing way; on the basis of that

information, they created a new e-mail system to share information that has implications for both program placement and classroom instructional practices. In each of the other three cases, there are examples of state-level collaboration that work to assist the delivery of local educational services. For example, Project SMART, NGS, the Out-of-State TAAS Administration, and Project Estrella all require the pooling of resources and sharing of authority among multiple partners to design, test, and implement these activities.

Implementation Problems or Obstacles

Evaluating the impact of the approaches and innovations remains tentative. The researchers found limited evidence about the effectiveness of the innovations, but most of these innovations are still being developed. The research team saw examples of students who were granted credit based on partial credit calculation or courses completed through distance-learning strategies. Pasco reported that most of the migrant seniors graduated, but whether this was attributable to its night school is hard to say.

Attribution of effects in education is difficult because of the number of impinging variables. Moreover, even if the innovations described in this study have positive outcomes, when migrant students travel, they are not enrolled exclusively in schools that implement the innovations. The high school student from Weslaco may enroll in Pasco's night high school but leave to follow a new crop before the term ends, and enroll in another school district without any or the same migrant education services. The basic facts of migrant life mean that if coordination is to succeed, it must involve more than a few exemplary sites. The effects of coordination should be evident on a large scale and involve many migrant programs.

The problems or obstacles encountered through the implementation of the innovations chosen for this study were as varied as the innovations themselves. In Yuma and Salinas, the barriers to implementing the e-mail information exchange were two-fold: time for planning and implementation, and equipment limitations for migrant programs in California. Since NGS cannot be directly accessed by all persons who need the information, its effectiveness is limited. Coordination with the purpose of sharing individual student information is especially difficult given the lack of a national information system and a national identifier for migrant students.

Technology-based approaches, while promising, present a challenge in terms of their cost. Texas has found Project SMART to be a good investment with relatively high start-up costs that drop off once it enters the maintenance phase. On the other hand, a model such as

Estrella, which issues a laptop to every child, may not be feasible on a larger scale. Limited access to telephone lines affects the effectiveness of the laptop computer approach. Computers and software are costly, especially when factoring in salaries for technical staff to maintain the systems. This expense may cost more than a local migrant program may be able to spend. If the basic education program will not dedicate resources for technology, that coordination mechanism may remain unavailable or limited in application.

Coordination also requires continuing commitment. It comes at high personal costs in terms of time and energy, especially in models that rely on individual effort and outreach. Even when coordination is institutionalized, it requires ongoing interagency communication. For example, states that tailor their curricula to match that of Texas need to remain informed of changes in content standards or other requirements. Initial adoption is not sufficient to maintain effectiveness; other states need communication with Texas-based specialists. Institutional efforts are easier to marshal and maintain when a sizeable number of migrant students demand attention, and when those students also bring in dollars through the Title I, Part C, Migrant Education Program state allocation. Efforts are more difficult to implement and sustain when numbers of migrant students are small.

Cross-cutting Themes

The case studies revealed four different approaches to coordination as it applies to enhancing educational continuity. This study also isolated a set of cross-cutting themes related to the solution strategies that addressed the problems facing migrant students. Those themes, as much as the coordination strategies, reveal how migrant educators perceive and address the problems inherent in migrant education. Those themes recurred throughout the cases:

- Shared vision of the role of migrant education;
- An emphasis on program alignment;
- Challenge of secondary credit accrual;
- Appropriate use of technology;
- Maximizing the value of personal relationships; and
- Importance of leadership.

Shared Vision of the Role of Migrant Education

Across the case study sites, migrant educators shared a vision, not just about their goals for their shared students, but about the role of migrant education. They viewed the Migrant Education Program as an educational service that keeps migrant children effectively connected to the educational reforms being implemented throughout the regular school year. Their vision supported the federal requirement that migrant education supplement, not supplant, the basic education program. They saw migrant students' needs in terms of what they were missing in basic education, and they saw the MEP as a resource to get information about those needs to the right people, such as teachers and counselors. They saw their own roles as facilitators to leverage changes that fit the needs of migrant students, such as new policies affecting the language of instruction, provision of supplemental instruction (sometimes through MEP funds), and counseling that supported students' education in their home-base states or districts. In states receiving migrant students, migrant educators often must provide supplemental interventions when they are not available locally—but with a focus on those services that best support progress in the homebase school. Although the trading partners selected different innovations, all of their strategies reveal their commitment to a shared vision.

Emphasis on Program Alignment

Alignment was a consistent theme among all the sites, even if not identified by local project staff. Each of the cases provided examples of efforts to align local instruction or instructional methods between the programs that share migrant students. In particular, they were committed to alignments with the students' home-base schools for curricular content and course requirements at the high school level. Projects that used Project SMART automatically provided the Texas curriculum for their Texas-based migrant students. Pasco analyzed courses taken in Texas to ensure local placements were aligned for content and for credit. It adapted PASS when necessary to ensure its offerings matched the school of origin's curriculum. At the elementary school level, trading partners sought alignment in the language of instruction.

Challenge of Secondary Credit Accrual

Every district that serves both elementary and secondary students reported that secondary education presents a greater challenge because of the problem of credit accrual. Migrant students at elementary grades need instructional continuity, but the instructional demands of elementary-level migrant students can be met through appropriate basic education services and

such supplemental services as after-school, Saturday, and summer programs. The crisis comes at the high school level, and stems partially from the lack of access to information that will guide timely placement and awarding of credit. The crisis also stems from lost instructional time; distance learning and individualized programs such as NovaNET and correspondence courses seem to hold the most promise to overcome this problem.

Appropriate Use of Technology

The appropriate use of technology also emerged as an important theme. Using technology in certain ways provided solutions to the problems of accessing information and providing instruction to difficult-to-reach students. Technology also was used in ways that can be described as both low- and high-tech. At the low-tech end, classroom teachers provided instruction based on another state's curriculum or gave another state's graduation test; counselors picked up the telephone and called other counselors to find out what classes a migrant student was enrolled in and what his grades were; tutors worked one-on-one with migrant students after school to help them make up course credits; and students studied at home through independent study courses. Further up the spectrum, migrant data clerks entered current information into the NGS data base. However, sometimes it took a phone call to TMIP or another district to discover the facts and/or who to call to access the needed information. At a higher level, migrant students in Illinois used laptop computers to study interactively through a mainframe computer at the University of Illinois, and also interacted by modem with their teachers in south Texas.

Technology was an effective way to access information in the Yuma-Alisal e-mail project, the New Generation System, and in local student databases observed in Van Buren and Weslaco. It figured prominently as a means for instruction in Montana through Project Estrella, Project SMART, and NovaNET. Telecommunications and computer technology support both effective access to information and instructional uses in migrant education.

Information access came up as a problem in every case, and technology consistently recurred as a solution. Personnel in districts receiving new migrant students had a host of questions that sometimes parents could answer and sometimes were contained in hand-carried documents such as the green envelopes and red bags. However, too often the questions, such as what grade the child belongs in, had no immediate answers. If the answers to many of these questions cannot be obtained quickly and accurately, the child may lose instructional time undergoing further assessment. At every site visited, migrant educators needed better access to information. At every site, respondents said there is a need for a national system of migrant

student identification and access to appropriate information. One person commented, "The biggest problem now is the lack of a national data base. Students with multiple moves do not show up in the records of a state that is not in a shared system. There is no central reporting of credit accrual." The same person said that the problem with MSRTS that led to its termination was not the system itself but its implementation. People simply did not use it properly, and "ultimately, funding determines what people do. If there is no money for transferring information, there is no incentive to do it." NGS has emerged as a technological successor to MSRTS but still does not provide complete information access even to those projects whose states have adopted it.

Value of Personal Relationships

Another cross-cutting theme centered on the value of personal relationships. This report has provided several examples of the value and power of personal relations as they can resolve many of the problems of migrant education. At nearly every site, the respondents pointed out that it is important to give migrant educators the opportunity to meet, learn about one another's situations, explore problems, and then set about to find solutions to the problems. Examples from this study include: personal meetings and conversations led to additional staff at Weslaco and Pasco, Donna, and Van Buren; the ability to make appropriate placements, determine grades, and award credit; they led to Yuma and Alisal devising an innovative e-mail system for information-sharing purposes; they led to Project SMART, Project Estrella, and NGS. Respondents lamented the reduced opportunity for such collegial meetings due to lack of funding. Before the reauthorization in 1994, migrant directors often had opportunities to meet under auspices of MSRTS or the three Migrant Education Program Coordination Centers.

The Office of Migrant Education has funded a series of interstate projects over the years, as noted earlier in this report, that were geared to increasing coordination of programs, and there was a strong communication component. There had to be support for travel for communication to happen. Now migrant educators at many sites say that it is difficult to get people out of their own districts and states for the purpose of talking to one another face-to-face. Part of the solution is a commitment of federal dollars, and part is communication to states that coordination is important.

Importance of Leadership

The solutions to migrant students' problems also involved different levels of personal leadership, from near-heroic efforts at the individual level to profound institutional commitment. Ultimately, nearly all of the innovations began with personal initiative on the part of someone who cared, who had an idea, shared the idea with others, and gained support to bring the idea to fruition. At the personal level, individuals in Michigan took the time and went to the expense of visiting programs in Texas and Florida. A project director in Arizona picked up the phone, called a migrant director in California, and said, "Let's talk," then, "Let's meet." Individual state directors and associated educators met to devise and implement the concepts of SMART, Estrella, and NGS. However, the innovations would be meaningless without institutional commitment. NGS is only effective if local districts dedicate personnel, time and facilities to its use. NovaNET can be effective in Weslaco because the district recognizes that a large percentage of its students have to miss part of the school year, and the district accepts responsibility for helping them keep up and has dedicated staff, facilities, and time.

Many of the individuals interviewed for this study who articulated the importance of personal connections also talked about the importance of state leadership. They said, "You see a person who is clearly designated as the contact person, who takes care of whole state, ...consistently participates in interstate coordination activities and communicates regularly." Solutions to problems were devised when leaders brought "people along from all levels" because then they are committed to becoming part of the solution.

The state director's role needed to be stable, a fact also cited by several respondents because there are "lots of agendas within a state education agency, and even if a state director wanted to collaborate he/she might not be able to because of those other agendas and pressures [and] it is difficult to maintain a relationship and establish initiatives that are sustainable when the job rotates through people, for short periods of time." Currently, most state directors have multiple responsibilities for multiple programs, and when state migrant directors do not serve long tenures, it becomes increasingly more important to reach institutionalized agreements among states so the coordination does not disappear when the director moves on to another position.

The researchers met many individuals who have exercised effective leadership, at state and local levels. Several explicit and implicit stories of leadership emerged, and it became clear that leaders in migrant education innovations demonstrated a consistent set of qualities:

- A personal vision and commitment to interstate migrant children.
- Understanding of the migrant experience or of discrimination in some form.
- A position that allocates a significant amount of time to MEP tasks.
- Positive personal relationships with other State Directors, especially those with whom students are shared.
- Sufficient tenure to have the freedom to work on interstate issues and have the time to build relationships.
- Support of superiors for the district or state's role in migrant education and interstate coordination.
- Staff persons or team with a clear assigned responsibility for interstate coordination.
- Encourage and model collaboration by involving other stakeholders in the design and implementation of initiative.
- Willingness to build on work that others have started in the students' home-base state.
- Support for staff travel to face-to-face meetings with partners at conferences, on committees, or in training sessions.
- Direct experience in implementing and sustaining interstate coordination activities with others.
- Allocation of sufficient funds to address interstate issues.

The degree of authority that local migrant leaders may have depends on what the state requires. The Office of Migrant Education funds state migrant programs; it does not directly fund local programs, which must apply to states for their money. The state migrant education plan may include a strong interstate or intrastate coordination component, but its success depends on the commitment of local leadership to implement it.

Impact (on the extent and quality of services offered to children and families) at both the state and local levels is imperative for successful coordination; however, interagency efforts at the state level are irrelevant if local implementation is not addressed. Long-term resources and staff allocations must be committed to perpetuate collaboration. If agency staffs do not follow through at the local level, little progress may occur and long-term collaboration may ultimately fail. Interagency coordination at the state level facilitates interagency work at the local level.

Several of the case study sites were of particular interest because they had implemented mechanisms developed at the state level. Where state plans do not include strong coordination components, local leadership can still explore and implement coordination strategies. Some of the sites in the study had gone beyond the mandates of their state migrant education plans and taken advantage of the latitude those plans allowed. In the field, coordination occurs through the combination of a shared vision, a commitment to align work and clear priorities, efforts that make negotiations and program implementation more efficient, personal relationships that support cooperative attitudes, and leadership to get the job started and completed. Nudging coordination to a point where all is working effectively is one matter; sustaining it as an on-going routine way of doing business presents other difficulties. The migrant educators who have initiated coordination mechanisms at local levels retire or are reassigned, and the same is true of leaders beyond the district level. The mechanisms, though, must be modified continually to respond to new needs, resources, and opportunities. This modification requires ongoing orientation and involvement of staff and procedures to guide their improvement. Otherwise, the mechanisms may outlive their purposes or even become part of the problem.

III. CONCLUSIONS AND IMPLICATIONS

The overarching purpose of this study was to find examples of promising practices in interstate coordination among migrant education "trading partners" that help overcome the negative effects of educational disruption caused by the need to migrate for temporary or seasonal work in agriculture. The study identified numerous practices, and four general strategies emerged along, with common themes that recurred across the Trading Partner sites. The general approaches documented in this study are:

- Alignment of district policies;
- Improved student information exchange and access;
- Staff resources to promote credit accrual; and
- Opportunities for supplemental instruction.

The cross-cutting themes discussed in this study illuminated the conditions, resources, and issues that encourage and make coordination possible. Those themes included:

- Shared vision of the role of migrant education;
- Emphasis on program alignment;
- Challenge of secondary credit accrual;
- Appropriate use of technology;
- Value of personal relationships; and
- Importance of leadership.

Many of the specific coordinating mechanisms can be replicated and/or adapted for use by other migrant programs. The procedures, strategies, and practices involve various levels of coordination, and nearly all required local accommodations in the basic education program to take into account the other educational systems with which migrant students are shared.

The findings of this study, including the crosscutting themes that emerged, lead to several conclusions about the challenges facing migrant students and migrant education programs' responses to those challenges. The conclusions and their implications are;

- ***Secondary credit accrual poses the most critical challenge for interstate coordination.***

The entire school career should progress toward high school graduation, but graduation cannot occur without adequate credit accrual. Strategies to address the problem of credit accrual demand the greatest efforts in time, money, and allocation of resources. These strategies also require more communication across programs to resolve differences in course offerings and graduation requirements.

While elementary migrant students also face disruptions due to lost instructional time, they encounter less disruption due to dissimilarities in educational programs. However, differences in language assistance programs for LEP migrant students often require coordination efforts for migrant students in the elementary grades. Other strategies to overcome lost instructional time, however, can be devised locally, such as extended day programs, Saturday school, inter-session study packets, and summer school.

- ***Strategically placed staff (i.e., guidance counselors, migrant resource teachers, or program specialists) are a crucial resource needed to facilitate credit accrual.***

Given differences in school curriculum requirements and the high caseloads of most regular guidance personnel, additional staff are needed to attend to and "negotiate" coordination between the education experiences of migrant students and the requirements of the school, school district, and state from which the student intends to graduate. Information management systems are important, but without a person to use the data, the primary goal of credit accrual and graduation will not be achieved.

The Office of Migrant Education's policies should emphasize use of migrant funds for activities that leverage local resources on behalf of secondary migrant students, reinforcing the supplemental role of migrant education.

- ***Flexible courses of study for secondary students are particularly promising innovations.***

The development of flexible courses of study are a promising means of assisting secondary students either to accelerate course completion (before withdrawing from school) or to finish incomplete courses (while on the road or upon return to the homebase school). Key factors in determining the ultimate effectiveness of these strategies are on-going processes to continuously improve the quality of materials, ease of access to the courses, and the use technology and training to facilitate their implementation.

Currently, incentives for states or districts to conduct rigorous formative and summative evaluations of their instructional innovations appear nonexistent. Most program staff report being consumed by "just getting the job done" and do not have the time or resources to systematically collect and analyze data that would inform the development of their practices or measure program outcomes. The Office of Migrant Education should consider options to encourage greater evaluation efforts by the states.

- ***The Internet is an emerging means for student information access and exchange—but data management capabilities remain a significant obstacle.***

While the promise of student information access and exchange via the Internet was demonstrated by several sites in this study, problems with data entry, access to hardware, and allegiance to local information systems continue to be significant obstacles to developing a functional interstate system.

Moving forward in developing an interstate information access and exchange system will be difficult. Leadership at both the state and federal level will be needed to forge a national consensus on how the disparate systems and interests can be connected or replaced. One means of moving forward would be to target a priority task or goal for which widespread demand of a solution is high, such as secondary credit accrual, and start there to seek common ground. The Office of Migrant Education is the logical entity that could support a process through which states can agree on a method to share information electronically that results in measurably higher levels of credit accrual.

- ***Interstate coordination takes time and must be nurtured.***

Interstate coordination requires patience, hard work, leadership, vision, commitment, and institutional support. It takes time to engage in activities that require building collaborative attitudes, personal relationships, attention to detail, and substantial effort. It takes strong and consistent leadership to support, guide, and nurture coordination mechanisms to maturity and adapt them to new challenges. Texas's long-term support of TMIP and its Annual Credit Accrual Workshop is an example of the kind of nurturing that leadership must provide to introduce best practices, create an ongoing opportunity to orient and get "buy-in" from new participants, update and re-energize veteran staff, and help individuals form the important personal connections and work groups.

The Office of Migrant Education should promote on-going opportunities for migrant educators to meet to discuss solutions to the kinds of problems that this study showed migrant students continue to face. The value and benefit of these meetings will be increased if State directors also encourage participants to share "hard" data that examines the strengths, weaknesses, and effectiveness of the strategies advanced to solve problems related to migrant education.

- ***Interstate coordination is not just a process. It requires people who are committed to solving problems collaboratively.***

Interstate coordination occurs when personnel believe in it and view coordination as essential to their tasks and student goals. Changes to programs and systems do not occur without staff members who hold the attitude and belief that the outcomes will be better for migrant students if colleagues, schools, districts, and states work together.

In Texas, state staff believe that they need to work with other states if migrant students are to be served effectively by the education system. They have acted on this belief by creating mechanisms that make it easier for any of the 44 states that shares migrant children with Texas to work with Texas. Similarly, it is the attitude of staff in states that receive migrant students—whether in Montana, Washington, or Michigan—of willingness to adapt and align their local programs to the needs of students who migrate from Texas. Such action fulfills the possibility of interstate coordination.

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APPENDIX A: CASE STUDIES FROM *COORDINATING THE EDUCATION OF MIGRANT STUDENTS: LESSONS LEARNED FROM THE FIELD*

APPENDIX A
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INTRODUCTION

The first two case studies described in this appendix focus on migrant students whose home base lies in Texas. This emphasis on Texas, which permeates the study, is deliberate for several reasons.

First, Texas originates more migrant students than any other state. Although California enrolls the largest number of migrant students, most of those students migrate within the same state, while migrant students from Texas travel to at least 44 other states. Second, Texas is also noteworthy because it has pioneered coordination strategies for the delivery of educational programs and services for migrant students across sites. In fact, the researchers discovered that many of the existing coordination mechanisms used by the trading partners profiled in this study were initiated in Texas or involved interstate planning between Texas and other states. Third, migrant students from Texas share a state requirement: They must pass the 10th grade level of the Texas Assessment of Academic Skills (TAAS). This requirement is not insignificant, nor should the TAAS be considered as solely a state test because it has had an impact on school districts throughout the nation. Many districts outside Texas that receive migrant students from Texas, including districts included in this study, incorporate preparation for the TAAS to further instructional continuity.

The third case study involves migrant children who travel to Michigan with both Texas and Florida as the sending states. The fourth case study focuses on migrant education in two other states: California and Arizona.

These case studies describe each trading partner, list the specific problems migrant students faced at each site, describe how these problems provoked innovations, and detail each site's unique and shared solutions. Each case concludes with a discussion of the coordination approaches selected and implemented by the trading partners.

and

Pasco School District, Pasco, Washington

The experiences of the Weslaco Independent School District (ISD) and its trading partner, the Pasco School District, illustrate several problems that confront migrant students when they change schools as well as strategies that combat those problems. In particular, this case study shows how a district that receives migrant students can accommodate its own services to fit the basic education programs of the migrant students' home-base schools. This case also demonstrates how a district that originates migrant students can modify its procedures to fit the needs of a large percentage of students who depart to follow seasonal agricultural work for a significant part of the school year. The Weslaco-Pasco case is representative of many districts throughout Texas and the upstream states.

The Partners

Weslaco Independent School District (ISD), Weslaco, Texas

Weslaco Independent School District (ISD) lies in the lower Rio Grande Valley near the Mexican border. It consists of one high school, three middle schools, and seven elementary schools. In 1997-98, the Weslaco ISD student enrollment numbered 13,271, pre-K through 12. Of those, 5,769 (43 percent) were identified as migrant. Weslaco ISD has the largest number of migrant students among districts in Texas, according to the Texas Migrant Interstate Project (TMIP). Approximately 40 percent of Weslaco's students miss part of their schooling due to migration. In the 1997-98 school year alone, over 75 percent of migrant students left Weslaco schools for destinations within central stream states. In that year, Michigan received the largest number of migrant students from Weslaco (1,342), followed by Minnesota (500), and Ohio (353). Weslaco ISD sent 724 students to eastern stream states and 481 to western stream states, including 147 to the state of Washington.

Migrant families usually head north for work in April, a few in March. They begin returning in September, and some do not return until November. They go to destinations all over the country--Washington, Florida, Missouri, Michigan, California, and other states. Of the migrant students, 2,482 were classified LEP, 278 Talented and Gifted (TAG), 3,469 at risk (economically disadvantaged), and 371 special education. Most of the LEP students are not Spanish-dominant, although their English is sufficiently limited to warrant special services.

The majority of migrant students who travel between Weslaco and Pasco consider Weslaco their home. They are accustomed to migration because most migrant families are multigenerational migrants, although the great majority now only migrate for the summer months so the children can stay in school. In part, this change is due to the Weslaco ISD's efforts to educate families and in part to the students' desire to remain in school. Frequently, migrant students who are high school juniors will stay with relatives so that they can finish the school year and then will join the rest of the family to help with their work. The number of students eligible for migrant education services in Weslaco dropped with the 1994 reauthorization of ESEA because of the decreasing from five years to two years on the length of time one can maintain MEP eligibility with "former" migrant student status.

When in Weslaco, migrant families are employed in agricultural work, working with carrots, cabbage, onions, cucumbers, and squash. This work includes everything from planting, tending, and harvesting to processing and packing.

About 80 percent of Weslaco ISD students are classified as low income, and all schools in the district are Title I schoolwide projects. Migrant-funded instructional assistants give first priority to migrant students who are most in need. Therefore, the Migrant Education Program still functions according to the targeted assistance model. Migrant education dollars are not folded into schoolwide projects but instead are targeted for specific services at the elementary and secondary levels.

Pasco School District, Pasco, Washington

Pasco, Washington is located in southeast Washington in the tri-cities area, which is comprised of Pasco, Kennewick, and Richland. Of the three cities, Pasco is the smallest and its population's socioeconomic status is the lowest. Area migrant workers are employed by four corporations in addition to independent farmers; these workers plant, harvest, prune, and process crops that include asparagus, apples, potatoes, and cherries. Pasco receives migrant students from school districts throughout Texas, including Weslaco.

Pasco's Migrant Education Program has undergone funding shifts, including transferring primary responsibility from supplemental, categorical funds such as Migrant Education or State Transitional Bilingual Education Program funds to basic district funds. Special funds are used to support supplemental positions, but all language development and academic instruction is

provided by certified teachers employed through basic district funds. Pasco School District does not adhere to a concept of "regular" students for whom the district is responsible versus "special needs" students for whom a special program is responsible.

Problems Facing Migrant Students

Migrant students who leave Weslaco often share unhelpful experiences related to their schooling:

- Some do not enroll in other schools because of difficulties in the enrollment process;
- Some attend schools that make inappropriate placements regardless of information provided by Weslaco High School;
- Some attend schools that do not share information with the Weslaco ISD upon the student's return to the home district.

Counselors at Weslaco High School agreed that Migrant Education programs are a key part of the solution to these problems because districts with migrant programs ensure that migrant students are enrolled in schools. Schools with migrant education programs also are much more likely to make appropriate placements and exchange information. As one counselor observed, "If there is a migrant program, kids are more likely to go to school. Whether there's a migrant program is the big difference."

Weslaco and Pasco experienced particular problems that sparked their efforts to coordinate their educational services between sites. These included:

- Lost instructional time due to families' moves;
- Lost instructional time due to the search for work and housing;
- Reluctance of older youth to enroll in school when time could be spent working in the fields;
- Dissimilar placement practices between school districts;
- Dissimilar high school course coverage between school districts;
- Credits lost because of a lack of student information.

Each of these problems is discussed below.

The Loss of Instructional Time. Until the early 1980s, migrant students lost instructional time not only during travel from Texas, but also upon arrival in Pasco. First, the family needed to search for work and housing. Then, they tried to access Pasco's schools and find support services such as child care. When these students returned to Weslaco, they also lost instructional time because they generally arrived six weeks after the start of the school year.

The Need for Migrant Students to Work. Migrant students over the age of 16 often want to or need to work. Work schedules conflicted with school hours; if students tried to attempt work and school, they were often too tired to study with any degree of efficacy. Of course, failure to attend school leads to academic failure; the fatigue and stress that results from simultaneously attempting work and school often leads to poor academic performance.

Different Placement Practices and Their Effects on Migrant Students. Different placement practices used by school districts present another difficulty for migrant students. For example, the Pasco School District places students at age-appropriate grades and endeavors to provide instruction that meets the student's needs. Some districts that originate students refuse to accept Pasco's age-appropriate placement if the student did not complete the grade sequence set by the district of origin. When districts do not accept Pasco's placements in grade, students may have to repeat material they have already studied. As a result of this relatively common practice, they become bored or discouraged. They also become overage for grade, which conveys to them the message that they literally have not made the grade. A consistent body of research on the dropout problem has shown that being overage for grade is the single greatest predictor of dropping out.

Different Course Content and Its Effects on Migrant Students. Other incongruities are also troublesome. Pasco has a comprehensive K-12 bilingual education program, while many Texas districts provide English-only programs. Weslaco provides bilingual instruction through fifth grade, then utilizes an ESL approach. As migrant educators in both districts worked with migrant students, their efforts to address migrant students' LEP status motivated their work to place students accurately in appropriate language support programs with a match to the practices of the trading partner.

In general, districts that work with migrant students find that problems are exacerbated at the secondary level. Across the nation, elementary education is perceived as more or less

"generic." Young students build basic skills and knowledge; it is easier to coordinate their services. However, at the high school level, different states or districts within the same state have different graduation requirements. Commonly used placement practices dictate more narrowly defined courses of study, such as college preparation or vocational education. High school schedules can also cause instructional problems. In Texas, for example, as in other states across the nation, many high schools use block schedules of four or five 90-minute classes. Other high schools follow a more traditional schedule of six to seven classes per day that are shorter in length. Therefore, the counselor must place the migrant student in classes that correspond to the other school's classes, and fill out the schedule with other classes, perhaps with electives. These classes may not advance the student toward graduation or provide a meaningful educational experience. As students advance in school, it becomes more critical for educators to rely upon detailed, accurate information about the student's course of instruction at the home base school.

Eventually, accruing credits toward graduation poses a critical problem for high school migrant students, due to time lost in moving, different course offerings, different course content, and different graduation requirements. Texas students confront the Texas Assessment of Academic Skills (TAAS) and must meet certain criterion scores on its reading, writing, and math tests in order to graduate. Pasco has to take that into consideration in order to help Texas-based migrant student graduate from high school.

Migrant educators in both districts reported that figuring out exactly what the migrant student needs (especially secondary-level students) has become more difficult with the demise of the Migrant Student Record Transfer System (MSRTS). While transferring student records has resulted in partnerships as the state level, such records exchange has been difficult to implement effectively at the district level. Accurate district-level information affects even the most promising state-level systems. For example, in states with records-exchange systems in place, local districts must input information to their state's database. That information then must be transmitted to another state, where it is retrieved by a local district. Time zones create another barrier; two-hour time differences between school districts result in a relatively small window of communication time for telephone calls between educators.

Other problems face migrant students as they try to plan for post-secondary education. Too often their mobility affects their performance on standardized tests such as the SAT and ACT. Mobility itself creates gaps in students' knowledge and understanding of complex material. Test preparation suffers.

Until recently, educators have held relatively low expectations for migrant students, limiting them to matriculation from high school. But migrant students and the educators who work with them need to look beyond high school graduation to post-secondary education and/or training to ready them for productive futures. When migrant students qualify for college entrance, the cost of out-of-state tuition can be an obstacle they cannot overcome.

Promising Practices

Weslaco and Pasco do not have formal agreements that govern their cooperative and coordinative practices, but as one interviewee said, "Both districts do what they need to do." Most of the coordination strategies developed between the trading partners can be attributed to each district's sense of commitment to its students. Key personnel in both districts share the migrant experience, which has informed their attitude toward the migrant students with whom they work.

Promising Practices in Pasco, Washington

Pasco relied upon the combined efforts of day care providers, farmers, agricultural companies, and schools to resolve issues related to excessive time lost in the move between states. Currently, crew leaders recruit migrant workers in Texas for employment in the southeastern area of Washington. The agricultural companies then bring in the workers to a central location (La Grulla, Texas) for an orientation. Families receive information on employment, social services, and available housing at this orientation. To expedite enrollment in the Pasco schools, Pasco sends a Home Visitor to La Grulla to conduct pre-registration activities at the orientation. Counselors in Texas schools support this effort by notifying families about the pre-registration event.

The Pasco schools rely upon information from the pre-registration process and upon historical data on student enrollment patterns maintained by the district to guide their preparations for the arrival of migrant students. Staff planning for migrant students and their educational needs begins in January of each year. The Special Programs Director, the Secondary Coordinator, and the Elementary Coordinator project what resources will be needed and where students will be placed. They hire staff for the night school and acquire additional materials. In the 1997-98 school year, their projections of migrant student enrollment were accurate within

seven students. Migrant students register for school at a migrant housing site so that migrant families do not have to seek information on how and where to enroll their children in school.

The night high school runs from April until late May or early June of each year so that high school students can take core classes after normal school hours. The night high school was established specifically to accommodate the schedules of migrant students who wish to work. The night high school schedule allows migrant students a break after work, time to change clothes and perhaps take a nap, before going to school. This year, 150 students were enrolled in Pasco's night high school, which also is open to students from other districts if they provide their own transportation. Until three years ago, the night high school used the Texas state curriculum to promote curriculum continuity. It tried to follow Weslaco's curriculum because of the large number of students that originated from the Weslaco ISD. However, the night high school now follows the Pasco curriculum because, although the night high school was designed for migrant students, it is not exclusive to them.

After the regular school year ends, the district offers K-12 summer school for low achieving students, but not specifically to migrant students. The district charges tuition to all non-migrant students. Migrant education funds, received by the district, pay for the tuition costs of migrant students who need to attend summer school.

The problem of age-grade placement has been resolved through compromise between the two school districts. In recent years, Weslaco has been amenable to accepting Pasco's grade placements and does not return students to lower grades upon their return to Texas. In general, Weslaco ISD now accepts the grade placements indicated on records from the schools trading students with it.

Continuity in the language of instruction has been resolved. For example, if a migrant student qualifies for bilingual services but attends a home-base school that conducts its instruction only in English, that student will be placed in the sheltered English strand of LEP services.

Credit accrual for high school students is facilitated through allotment of partial credits. Pasco's practice is to calculate the percentage of a semester that a student spent at the school in Texas. Whatever grade the student brings to Pasco is assigned that corresponding percentage of the final grade. For example, if a student spent 60 percent of a semester in Texas and arrived with a class grade of 84 in algebra, the 84 would count 60 percent of the final grade. The actual

final grade is calculated on Pasco's scale, since it is the grade-awarding district at the end of the semester. Partial credit, which takes considerable time to calculate, continues to be a substantive issue of negotiation. Unfortunately, at some Texas high schools, no one takes the time to consolidate partial credits, even though Pasco sends transcripts immediately upon request.

Information access is the key to the delivery of appropriate services, timely placement, and awarding of credit. Pasco's Special Programs Department maintains an extensive computerized database which encompasses all students in the district, representing the district's commitment to providing an efficient, timely source of information about students and facilitating monitoring of their progress. The Department generates a student profile for every special programs student. Every teacher is notified of each of his or her student's membership in special programs so the teacher may seek additional information or assistance as needed. The computer system can be used to identify students who consistently migrate from Texas and those who move out and re-enroll frequently. However, Pasco migrant educators report that the demise of MSRTS has taken away the ability to identify frequency of moves that do not involve Pasco.

Pasco's personnel work hard to communicate with personnel in other districts. The Texas Migrant Student Transfer Packet system provides one avenue of communication. The transfer packets are known as the "red bag and green envelope system." Texas puts all pertinent documentation—transcripts, withdrawal slips, test scores and vaccination and medical information—into a red bag which the students and families pick up from the school before leaving Texas. Experienced migrant families know this routine, and most children from Texas arrive with their red bag. Pasco uses a green envelope—that was developed quickly after the demise of MSRTS—to send similar kinds of information when students leave. However, personal contact still forms a large part of the coordination. Staff report that it is key to find someone sensitive in the trading district with whom to communicate. Responsibility for follow-up phone calls to verify student information is placed on the schools. The Special Programs Department also maintains the district database, which identifies migrant students and their districts of origin. The system has the potential to verify current grade placements, credit accrual, and graduation.

Although most students arrive with their red bags, withdrawal slips have to be confirmed and official transcripts obtained. This requires many person-hours by phone and fax. Pasco's counselors also take advantage of the Texas Migrant Interstate Project (TMIP), which has an 800 tollfree number that counselors can call for assistance in contacting schools, or the school district

can call for help in locating another school. The Texas Migrant Interstate Project (TMIP) has information on TAAS scores and contact persons at a student's previous school. About 30 percent of the calls made by Pasco staff are to TMIP; most other calls are made directly to the originating school. All Pasco school facilitators have the TMIP Directory.

Finally, Pasco's institutionalized support for the Migrant Education Program is illustrated in the relationship between the Special Programs Department and the rest of the district. While direct instructional service is funded through basic district resources, technical leadership and program management are administered by the Special Programs Department. For that reason, the Special Programs Department has a well-defined role but does not shoulder primary responsibility for instruction. This structure allows migrant education services to interact effectively and efficiently with other special services, such as the state-funded Learning Assistance Program, the federally funded Title I program, the Transitional Bilingual Education Program, and special education services. This structure achieves the programmatic congruence described by Walp and Walmsley (1989) and noted in Volume I. The Special Programs Department also currently conducts the districtwide assessment program, ensuring consistency and non-duplication in testing practices.

Evidence of the local solutions was seen in samples of the student database identifying migrant students, grade and course placements, and type of services received, such as bilingual education. The researchers also saw samples of partial credit calculation. Crew leaders and the processing plant personnel manager corroborated the recruitment methods and local partnerships with growers.

In June 1998, 16 of 20 migrant seniors were graduated from night high school. Four seniors were graduated from Pasco High School because they did not pass the TAAS, and the other 12 graduated from Texas schools although they had attended some schooling in Pasco, Washington. Four other seniors were credit-deficient and could not graduate.

Promising Practices in Weslaco, Texas

Weslaco supports migrant students with practices targeted to their departure and their return. Departing high school students can be given course study guides, and when they return, gain credit by passing exams. If a migrant student enters school within six weeks of the semester's beginning, s/he is placed in regular classes. After that time, or if the student has very low language or academic skills, s/he is placed in a self-paced study program. This option

includes modules from the American Preparatory Institute (API). Each module has a pre-test and a post-test. These study modules are problematic, however, because they require reading ability many students do not possess. Unit and semester tests for the API modules were devised locally to ensure the same levels of competency as corresponding regular classes. These self-paced programs last only for a semester. At the semester's end, the student is placed in regular classrooms.

The Weslaco ISD's Migrant Education Program supports extended-day programs, through Saturday tutorials at elementary schools, regular tutorials at grades 1-6, and some self-paced packets at grades 7-12. The Saturday tutorials begin in January when all of the migrants have returned. All migrant students are referred to Saturday tutorial school.

The supplemental education services that Weslaco High School provides for its migrant students are the NovaNET Lab, the American Preparatory Institute modules, and night school. These solutions specifically meet the needs of migrant high school students who return to Weslaco too late in the school year to be placed in a regular class.

NovaNET. In 1997-98, the district began using NovaNET, a nationwide computer-based curriculum. NovaNET was introduced to Weslaco ISD through the district's involvement in Project ESTRELLA. Project ESTRELLA is a five-year interstate initiative funded by the U.S. Department of Education, Office of Migrant Education. The Project brings laptop computer technology and telecommunications directly into the hands of migrant students.

NovaNET Learning, Inc., writes curricula which can be modified by districts and uploaded to the mainframe. Once on the mainframe, these modified curricula are available to anyone. Districts pay a fee to the company for access to the curricula, as well as a hook-up fee.

While Weslaco's involvement with NovaNET began with migrant students, it now has expanded to include other special needs students, such as pregnant students or those on medical release from school as long as costs of the program are shared. The district has a total of 50 ports among the high school, the junior high schools, and the ninth-grade campus. These ports are used during the regular school day, in extended-day programs, and for adult school (GED).

NovaNET offers students the opportunity to make up core subjects through the use of distance learning technology as well as enroll in a range of classes from basic through advanced placement levels. However, in the opinion of Weslaco High School staff, not all courses are

equally strong. NovaNET has been aligned to the Texas Educational Knowledge and Skills (TEKS). Currently, counselors and other staff are trying to align curricula to specific Weslaco High School requirements. Students who enter with class records are more likely to be placed in a class than in API or NovaNET.

Weslaco High School has a full-time NovaNET teacher, funded by the Migrant Education Program, who supervises the NovaNET lab during the day. This teacher explained to researchers that migrant students receive priority for time in the computer lab. In addition, there are two part-time evening NovaNET teachers. The lab has 20 ports for NovaNET access, allowing 20 students at a time to access the NovaNET curricula. One port is used for call-in from laptops.

The district has hired two teachers from each of the four core areas to grade NovaNET assignments, to ensure that NovaNET work is equivalent in content and quality to what is offered in regular classrooms. Plans are underway to set up NovaNET science labs to simulate experiments without the usual hazards of chemical spills, burns, and other injuries.

API (American Preparatory Institute). This program focuses on the teaching of critical skills containing special instructional multi-media materials. It is designed to help high school students in grades 10-12 to continue with their respective graduation program plans and facilitates the opportunities for migrant students to obtain scholarships.

Weslaco staff reported that they now accept grade placements made by the last enrolling district. Weslaco offers bilingual instruction in grades K-5, but not in grades 6-12. Finally, while other Texas districts use block scheduling at the high school level, Weslaco does not. Therefore, the issues raised in Pasco were often generic to Texas but not specific to Weslaco.

Weslaco's Migrant Education Program also relies heavily on the Texas Migrant Interstate Project (TMIP) and on Region 1, a regional service center under the auspices of the Texas Education Agency, to assist it with problems related to information access and coordination activities. Those entities have organized or facilitated some of the visits by counselors from Pasco and other districts outside Texas. TMIP provides a point of contact to identify previous districts attended by migrant students if those districts were in Texas or other states that support the Texas Migrant Student Transfer Packet. The Education Service Center in Region I (ESC-1) serves as a point of contact for the New Generation System, which provides electronic access to student records and allows identification of migrant students' previous schools.

Weslaco's 1997-98 Migrant Student Academic Performance evaluation report confirmed that the district has helped its migrant students to succeed academically, but the same evidence illustrated how migrant students graduation rates are not increasing. The report showed high passing rates for migrant students on the reading and math portions of the TAAS. The passing rates per grade level are presented in Exhibit 1.1.

Exhibit 1.1: TAAS Pass Rates by Grade Level in Weslaco

Grade	TAAS—Reading	TAAS—Math
3	94%	95%
4	96%	98%
5	86%	98%
6	81%	94%
7	71%	78%
8	65%	74%
10	83%	73%
11	40%	57%
12	67%	86%

It should be pointed out that 10th grade represents the TAAS exit level. Students who took the TAAS in 11th or 12th grade generally had not passed it before. The data shown above for 11th and 12th grade are based on relatively few students, mostly low-performing students who did not pass the TAAS in 10th grade.

The TAAS data suggest that Weslaco's migrant students generally made good academic progress. However, the data that show overage students at each grade level tell a more complicated story. At every grade reported from second to eighth, no migrant students were overage for grade. However, at 9th grade, the figure jumped from zero to 49 percent. At high school, grade level is designated according to the number of credits earned. The TAAS data shown above, coupled with the number of students who were overage for grade, probably reflect the difficulties migrant students have as they try to accrue credits for graduation.

Weslaco's efforts on behalf of its migrant students have demonstrated success. In November 1998, the Texas Education Agency recognized five of Weslaco's seven elementary schools at the state's migrant conference for migrant students' exemplary passing rates on the

TAAS. In 1998, no one was denied graduation on the basis of not passing the TAAS. This may speak to the positive effects of TAAS preparation offered by districts outside of Texas.

Discussion

Migrant students moving between Weslaco, Texas and Pasco, Washington faced a number of problems associated with their moves across district and state boundaries:

1. Students lost valuable learning time while families moved, found work, and located housing and child care.
2. Students lost instructional time during the time families work in areas that do not have Migrant Education Programs.
3. Students experienced conflicts between their need to work and to attend school.
4. Students experienced dissimilar grade placement policies.
5. Limited English Proficient migrant students suffered from dissimilar language assistance programs.
6. Migrant students' academic progress was impeded by different high school course offerings.
7. Migrant students lost course credit toward graduation because they did not attend school or were placed inappropriately in courses in other districts.
8. Migrant students lost course credit due to a lack of information about courses taken elsewhere.
9. Migrant students lost high school credits because they left school.
10. Migrant students missed opportunities to prepare for and take the TAAS.
11. Different districts serving migrant students had different graduation requirements.

Pasco and Weslaco have made many local changes in curriculum, instruction, and data processing to accommodate the special needs of their shared migrant student population. While most of the solutions were devised at the local level, the school districts draw assistance from interstate mechanisms such as the Texas Migrant Interstate Program, which facilitates personal communication; Project ESTRELLA, which introduced Weslaco to NovaNET; and the New

Generation System, which provides electronic access to student records and allows identification of migrant students' previous schools.

The two districts worked hard to coordinate the educational services they extended to migrant students. Their coordination efforts and strategies are summarized below:

1. The two districts coordinated their efforts with growers and Texas schools for pre-registration; alternative registration sites were provided in Pasco.

2. Pasco's grade placements were determined in cooperation with Texas schools.

3. Limited English Proficient (LEP) migrant students were placed in sheltered English or bilingual programs according to Texas schools' practices.

4. Course placements were made based on their similarity to Texas courses or individualized Portable Assisted Study Sequence (PASS) packets.

5. The opportunity to attend night high school was provided to migrant students during the peak agricultural season.

6. Partial credits were calculated and credits awarded so that migrant students could progress in a timely fashion toward high school graduation.

7. PASS packets helped graduate students with Washington state diplomas.

8. In collaboration with the Texas Migrant Interstate Program (TMIP), preparation for the TAAS as well as opportunities to take the TASS were provided to migrant students in Pasco.

9. Student records were exchanged through the "red and green bag" transfer packet system.

10. Instructional time was flexible and included extended-day programs as well as Saturday programs after migrants have returned to their home-base district, tutorials, and evening classes at the high school.

11. Individualized courses were designed for migrant students to meet local content standards; these were provided through API packets and NovaNET labs and materials.

12. Staff communicated intensively with their peers in other districts so that migrant students could be awarded credits through partial credit calculation or matching course content.

These efforts and strategies involved various degrees of coordination at differing levels. Several illustrate local, unilateral accommodations, such as the creation of a night high school. However, it was necessary for staff in both districts to cooperate, coordinate procedures, and collaborate with other agencies to develop any strategies for migrant students. For example, pre-registration procedures evolved out of coordinative efforts with growers, and are carried out with the cooperation of school districts such as Weslaco ISD. The bilingual and sheltered English language assistance programs were developed to meet local needs, but placing migrant students in the appropriate language assistance program requires cooperation in sharing information or the coordination or provision of information such as through the "red bag and green envelope" system. Accurate placement in grade also requires shared information and an agreement to honor another district's placement policies. Partial credit calculation, correct course placements, and the provision of individualized programs all require intensive communication between the trading partners and mutual understanding of course content and grading practices. Preparation for the TAAS as well as its administration also requires collaboration with the TMIP in order to keep the service up-to-date and ensure that the local results are duly credited. Much of this understanding has come about through coordination efforts above the district level, notably the credit accrual workshops and educator visits sponsored by TMIP and ESC Region I.

The extended-day programs and individualized courses are local accommodations tailored to migrant students' unique needs. These accommodations ensure curricular congruence for migrant students so local and state standards from the home district are met. Coordination with other entities becomes critical at the high school level to allow students to graduate. The most demanding effort is the cooperation with counselors in other schools to obtain information about courses taken in order to award credit and calculate partial credit. Both districts also take advantage of the systems that were put in place, notably the Texas Interstate Migrant Program, in order to locate other schools or to meet with other educators to share information about their respective programs in order to facilitate the awarding of credit.

As noted in Volume I, Allington and Johnston (1986) discussed the importance of coordination between different programs that serve the same children in order to achieve curricular congruence, especially congruence between what is to be taught and the methods of instruction. The practices described above go far toward achieving congruence for the migrant students even as they travel between districts across state lines. In addition, the Weslco and Pasco case illustrates the cooperative conditions needed to successfully transition migrant students between school systems.

Effective communication built via personal relationships also seems critical for program effectiveness. For example, even with a record transfer system in place (i.e., in the form of red bags and green envelopes), individuals must spend a great deal of time verifying transcripts and withdrawal slip information, primarily via telephone and fax. Communication and cooperation have been facilitated by personal contact. In early 1998, the Washington state migrant director took a group of superintendents to Texas as part of an initiative on the part of the Educational Service Center 1 in the Rio Grande Valley to familiarize them with Texas-based programs and make them aware of migrant issues. In 1998, the Pasco superintendent made the same visit. Texas superintendents made a similar trip to Washington a few years ago. During the 1997-98 school year, a Pasco High School counselor visited south Texas to establish personal contact with her counterparts there; she has found the trip made other counselors more willing to share information with her.

During the site visit for this study, Weslaco High School counselors produced a letter from Pasco High School to which had been appended complete and current transcripts. These transcripts had already been filed, but a sample of three students' transcripts showed that classes begun in Weslaco had been completed in Pasco. That was possible because the **personnel in** both districts cooperate with each other. One counselor at Weslaco asked, "If Pasco and Weslaco can work together, why not other districts?"

Eagle Pass Independent School District , Eagle Pass, Texas
and
Sidney, Montana Summer Migrant Education Program

The Eagle Pass-Sidney case study illustrates how a sending site and a receiving site were able to take advantage of instructional programs and information systems that were set in place by state-level initiatives. In this case, the two sites primarily use technology-facilitated instructional programs to enhance educational continuity for their shared students. Additional efforts to coordinate educational services via improved access to student records are facilitated by the joint use of the Internet-based New Generation System.

The Partners

Eagle Pass Independent School District, Eagle Pass, Texas

Eagle Pass is situated in the upper Rio Grande Valley of Texas, on the United States—Mexico border. For over 20 years, migrant families from Eagle Pass have been traveling annually to eastern Montana to work in the sugar beet fields. These families generally withdraw their children from the Eagle Pass Independent School District (ISD) in the Spring before school is out for the year and do not return until after school has reopened in the Fall.

The sugar beet work in Montana generally lasts for two months (e.g., June and July), after which the migrant families move on in search of other agricultural work. Some might travel to Minnesota for cannery work in the food processing industry and then on to Maine for the blueberry harvest later in the summer, followed by a cross-country trek to Washington to dig potatoes in the fall. After returning to Eagle Pass in November, some families may move eastward to Florida for a brief period of work in the citrus fields during December and January. The frequent migration pattern seen at Eagle Pass is typical of the migration patterns seen at many school districts in Texas that lose large numbers of their students during the start and close of the school year, as well as intermittently during the school year.

Migrant families staying in Eagle Pass over the summer or through the winter have limited employment opportunities. Local jobs for those with limited skills—such as migratory farm workers—appear to be available in the food service industry (e.g., at McDonalds, Burger King, or Pizza Hut). Additionally, local ranchers on both sides of the border hire day laborers for work connected with the cattle industry (e.g., harvesting hay).

The Eagle Pass ISD enrolls about 8,000 students, most of Hispanic origin. Approximately one in five Eagle Pass students is a migrant. The secondary-level student population is served by two high schools: Eagle Pass High School (for 9th and 10th graders) and the C.C. Winn Campus (for 11th and 12th graders). Two junior high schools and 11 elementary schools serve the K-8 population. Specialty programs are housed in the Language Development Center, the Early Childhood Center, the Literacy Academy, and the Frank Chisum Regional Technical Center.

Eagle Pass ISD's curriculum is aligned with the state curriculum, the Texas Essential Knowledge and Skills (TEKS). Eagle Pass also aligns its instruction with the Texas Assessment of Academic Skills (TAAS). Both the TEKS and the TAAS have been adopted and approved by the Texas Board of Education and the Texas Education Agency (TEA) for use by school districts throughout Texas.

Sidney Summer Migrant Education Project, Sidney, Montana

The Sidney Summer Migrant Education Project serves eligible families who live temporarily in the Richland County area of eastern Montana, primarily along a 40-mile stretch of the Yellowstone River from Fairview (on the North Dakota border) to Savage. Sidney is the mercantile center for Richland County. Agriculture is the dominant economy in eastern Montana; Richland County is first in the State for production of sugar beets and oats. Holly Sugar is one of the main employers in the region. Migrant families come to Richland County in the summer to work as farm laborers thinning and weeding sugar beets or to work in the sugar refinery at Holly Sugar.

At the time of the site visit in mid-June 1998, the Sidney Migrant Summer Project had qualified 58 families and approximately 120 children; 107 (89 percent) of the children were from Texas. Of these 107 children, 67 were of school age (grades 1-12) and enrolled in the Sidney Migrant Summer Project. Twenty-five of the 67 school-age Texas children were enrolled in the secondary program (grades 9-12). The middle school program (grades 6-8) accounted for 25 of the Texas-based children; the elementary program (grades 1-5) accounted for the remaining 17 students. The 34 preschoolers were enrolled. Six of the eligible children were not enrolled in school at Sidney. Sixty-five students (age 21 and younger) were actually on-site at the Sidney Migrant Summer Project on June 18, 1998. State records indicated that 44 percent of the Texas-based students were from Eagle Pass.

Problems Facing Migrant Students

In this case study, the main problem experienced by Texas-based migrant students is credit accrual at the secondary level. Typically, migrant students withdraw from school before the end of the academic year in order to travel out-of-state with their families in search of agricultural employment. Over time, this pattern has a cumulative effect. Migrant students fall behind in their schoolwork. They experience problems with school attendance, problems with school grades, problems with course completion, problems with school re-enrollment, and course failure problems which in turn affect their ability to accrue credits, be promoted in grade, and graduate from high school. These problems are compounded at the middle school and high school levels where course enrollment and grade promotion are contingent on mastery of particular course sequences of study.

The first problem faced by migrant high school students is the need to complete their coursework and obtain credit for it towards graduation. This problem can be resolved either before the student withdraws from school or after the student leaves school. The second problem these students encounter is continuing their education while on the road. In order to continue their education, they need to be enrolled in some form of secondary school program that will allow them to earn high school course credits in ways that comply with their needs. Their choices include not enrolling in a relevant secondary education program, enrolling in a relevant program before leaving their Texas school, or trying to find an appropriate program to enroll in once relocated to another state.

If the migrant student enrolls in a secondary school program to complete his or her coursework—either before leaving Texas or upon arrival in another State—the next problem h/she faces is appropriate course placement. Furthermore, in order for Texas-based secondary migrant students to receive course credit for academic work done outside of Texas, the home-base school district in Texas must agree to accept their coursework. Otherwise, courses taken out-of- state will not transfer back to Texas and count toward requirements necessary for a Texas high school diploma.

Lost time in school also means loss of academic preparation needed to take the TAAS with any degree of success. The TAAS must be passed to obtain a Texas high school diploma. Most students take the TAAS as sophomores but have additional opportunities to take the test before graduation.

Finally, most interstate migrant families generally return to Texas in the Fall after school has re-opened. In many cases, families don't return until around Thanksgiving or later. This late re-entry into school is problematic, particularly in schools that use block scheduling. In these situations, the migrant student may be required to wait until the next marking period, the beginning of the next curriculum block, or the next semester to re-enroll in school. Additional school time is lost, as are opportunities to earn secondary course credits needed for graduation.

Promising Practices

The Montana Office of Public Instruction (MOPI), the Texas Education Agency (TEA), and the Texas Migrant Interstate Project (TMIP) have a history of formal collaboration that has resulted in a joint technology-based approach to instructional continuity and records exchange in migrant education. A 1993 Cooperative Agreement between the Montana Office of Public Instruction and the Texas Education Agency stated that Montana and Texas would "work in a cooperative effort to promote and facilitate instructional practices and policies which meet the needs of migrant children." These agencies listed specific goals:

1. **To encourage communication among educators in both states to facilitate the transfer of high school credits for migrant students that would lead ultimately to their graduation;**

2. **To support and facilitate the completion and acceptance for credit of coursework started in one state and completed in the other state;**

3. **To support and accept the exchange of high school credits and partial credits between school districts in our states;**

4. **To accept the supplementary coursework provided in each state (including but not limited to the University of Texas Skill Building Courses; and PASS) and facilitate its completion;**

5. **To provide support for the completion of state or local competency testing requirements for high school students.**

This agreement has led to an annual spring training conference in Billings, Montana, sponsored by TEA/TMIP/MOPI and geared to Montana and Texas migrant educators. It focuses on the cooperative implementation of distance learning instructional technology (i.e., Project SMART) and the parallel use of computer-assisted technologies for instruction (i.e., NovaNET computer labs and laptop computers) and records exchange (i.e., the New Generation System [NGS]). Other issues related to interstate coordination in migrant education are also discussed and updated at this annual conference (e.g., migrant student identification, the Red Bags, credit accrual, TAAS preparation, and out-of-state administration of the TAAS). Representatives from both states also attend a credit accrual resolution conference hosted every Fall in the Rio Grande Valley by the Texas Migrant Interstate Program.

As a precursor to implementing these technological solution strategies, the MOPI-TEA-TMIP collaboration resulted in an alignment of Montana's migrant education instruction with the Texas state curriculum (TEKS). Montana's migrant education assessment policy also was aligned with Texas's provisions for administering the TAAS out-of-state. Provisions were made for preparing Texas-based migrant students for the TAAS so that they were prepared for its content and also equipped with adequate test-taking skills. This, in turn, led to the use of TEKS-aligned instruction and assessment practices by the Montana Office of Migrant Education for its summer school projects.

The SMART Project curriculum was implemented first in Montana in the summer of 1991, followed by the implementation of the NovaNET curriculum, first through the use of computer labs in the summer of 1993 and then with the introduction of laptop computers in the summer of 1998. These developments in instructional technology required additional collaborative relationships: not only between TEA/TMIP/MOPI but also with curriculum and software developers at NovaNET Inc., Apple Computer Inc., Montana MET-Net, Texas Tenet, the Region XX Education Service Center in San Antonio (ESC-20), and the Southwest Regional Educational Laboratory.

At the local level, the Sidney Migrant Project and the Eagle Pass ISD (as well as La Joya, Weslaco, and Pharr ISDs) have had a long history of collaboration in which Montana has adopted instructional innovations first tried out in Texas. This initially occurred with the development of distance learning technology through Project SMART in Texas in the late 1980s and its pilot testing for interstate applications in Montana in 1991. Then came the spread of the NovaNET lab concept at the school district level. The initial diffusion of NovaNET in Texas took place in the late 1980s and early 1990s. The adoption of temporary NovaNET labs for

migrant education in Summer projects took place in Montana during 1995 after state education officials observed the labs in operation in Texas districts such as Eagle Pass.

The spread of computer-assisted instructional technology in Texas eventually extended to the use of laptop computers with interstate migrant students. Eagle Pass ISD was an early developer of laptop applications for its migrant population. In 1996, MOPI adopted the laptop concept by funding a pilot project involving 10 migrant students traveling between Texas and Montana. Subsequently, the laptop project was strengthened by collaboration between the Illinois Migrant Council, MOPI, and TEA, which resulted in the acquisition of federal technology funding that currently supports Project ESTRELLA. This collaboration increased the number of interstate partnering sites that share Texas-based migrant students who promote educational continuity through the use of laptop computer technology. Consequently, the Sidney Summer Migrant Education Migrant Project now uses laptop computers as an additional distance learning option in collaboration with the Eagle Pass ISD.

A description of how each partner implements these strategies follows.

Promising Practices in Eagle Pass ISD

When an Eagle Pass counselor discovers that a migrant student will leave school in the Spring before the end of the school year, or has returned to Eagle Pass in the Fall after school has opened and wants to re-enroll, he/she will try to get the student involved in one or more of the following interventions:

- Computer-assisted instruction through a NovaNET lab or assignment of a laptop computer;
- Enrollment in a TAAS-Prep course available through one of several options;
- Participation in the credit-by-exam option offered through the University of Texas Migrant Program;
- Enrollment in Project SMART.

Each of these major interventions is described below, including their alternative delivery systems.

NovaNET. A description of NovaNET was provided in the first case study. Eagle Pass has been implementing NovaNET since the 1993-94 school year. NovaNET labs in the Eagle Pass ISD are housed at both of the high schools and are used as an alternative instructional methodology for secondary students who have failed in the regular classroom. Two teachers (English and math) and a lab manager supervise each NovaNET lab. A school counselor makes recommendations for NovaNET enrollment for the migrant students in either the Spring or Fall of the school year. In the Spring, these assignments include Summer assignments for migrant students given laptop computers who then have the capability of accessing the NovaNET lab in Eagle Pass from remote out-of-state locations using their computer's modem connected to a telephone.

NovaNET software modules cover the full spectrum of the Texas secondary school curriculum, from math and English to science and social studies, including TAAS-Prep, PSAT-Prep and SAT-Prep, GED-Prep, and ESL. English courses tend to be the main focus for the migrant students and NovaNET is considered strong in terms of its English grammar lessons. NovaNET is a good alternative for students who need individualized attention—from the individualized approach provided by computer-assisted instruction and from individual and small group work with the NovaNET teacher. It allows students to work at their own pace and follow their own time schedule. However, it does not provide much opportunity for extended reading or writing composition. For these latter areas, school personnel tend to augment NovaNET with curriculum material from other sources.

Most students using NovaNET are trying to make up assignments to get credit in their classes. Course credits are based on the number of lessons that are completed satisfactorily in the assigned NovaNET modules. The NovaNET teacher verifies the work, assigns a grade, and posts the grade or grade change with the registrar's office in the ISD.

The NovaNET labs in Eagle Pass address a number of different kinds of student situations bearing on credit accrual needs. These are reviewed below and can generally be considered variations of an "extended day" approach.

Eighth-Period Instruction with High School Seniors. The upper-division high school (C.C. Winn Campus) uses NovaNET with high school seniors who have failed a required English or math course and who are taking more than one English or math course. NovaNET provides these seniors an opportunity to complete the course they need for graduation when they do not have the opportunity to take the needed course a second time because they cannot fit the

course into their schedule or because the needed course is not being offered before the end of the school year. NovaNET is offered for these students during the eighth class period of the school day. This allows these seniors to pick up the English or math credit they need during the school year and graduate on time with their class. Thus, they avoid the need to enroll in summer school or re-enroll in high school after their senior year to complete a single course needed for graduation.

The 8th period option is also used as an alternative for migrant students who cannot attend the Saturday and After-School "add-on" Programs in the Fall because of weekend or after school employment. They also are an alternative for migrant students returning to Eagle Pass late in the Fall who have been denied course or school enrollment because of block scheduling conflicts. The NovaNET labs provide these migrant students with opportunities to resume their education when they cannot enroll in a class they need to complete for graduation.

Accelerated Instruction for High School Sophomores and Juniors. NovaNET provides sophomores and juniors an opportunity for accelerated instruction. Participants in this program include those migrant students who want to complete their coursework in the Spring before withdrawing from school to travel with their family for employment out-of-state. It also provides a solution for those migrant students who do not want to make up the course in summer school. Such students must demonstrate a degree of self-motivation and independence to be successful with NovaNET.

Graduation Enhancement. Migrant students who enroll a few weeks late in the Fall or who are getting failing grades in the first 6-week marking period are referred by school counselors to this after-school NovaNET lab. This extended-day class is provided as an opportunity for these migrants to make up the work they missed the first six weeks of school or to remediate failing performance.

Graduation Enhancement (GE) classes meet Monday through Thursday for one hour after school. The classroom teacher sends lesson material to the "add-on" class that s/he expects to be covered; this material either was missed the first six weeks or is content on which the student's performance is poor. The GE teacher then provides instruction in those materials. The GE classes tend to be project- or task-oriented. Students must demonstrate mastery of specific assignments and skills (e.g., completing a research paper, completing a curriculum unit, completing a book report, or completing some test like the TAAS).

Migrant students who know they will miss the last six weeks of school can participate in an after-school program to complete the work they would otherwise miss. This is a Winter version of the Graduation Enhancement Program.

Summer School Now. Migrant students who missed the majority of the first six weeks of school must attend the Summer School Now Program which meets for five Saturdays in a row from 8 a.m. to 1 p.m. They must attend all five make-up sessions in order to receive credit for the class they missed.

Remote Access to NovaNET. Eagle Pass has been operating its own laptop computer project for approximately three to four years under the supervision of the high school counselors and NovaNET lab teachers. The laptop project essentially extends student access to NovaNET through the use of telecommunications technology (i.e., use of a portable computer with a modem and access to a telephone).

Interstate migrant students can access NovaNET with a laptop computer when they are traveling out-of-state with their families in the summer. As many as 50 migrant students participate each summer in this locally funded project (through Title 1 Migrant Education Program funds). Migrant students are assigned laptops based on a number of factors, including instructional need, student maturity and dependability, and the anticipated distance of the family's summer location relative to the family's access to summer school project sites in an upstream state. Migrant students whose families are too remote from a summer school site will be given preference for a laptop. The alternative for many migrant students is to travel by bus from a migrant camp to a night school to participate in a summer instructional program of some sort (e.g., a SMART broadcast). Under such circumstances, the migrant students can show up late for class and be too tired to concentrate on their studies. Remoteness of location is a primary consideration for assigning a laptop to a student plus demonstrated motivation for making up credits or enrichment interests.

An Eagle Pass counselor determines summer course assignments for laptop applications. For example, the counselor might determine that the student needs to complete English IA over the summer. A form identifying the assignment then is given to the student by the counselor to take to the NovaNET teacher who then might assign 25 percent of the coursework as a writing assignment and 75 percent to be completed on specific NovaNET English modules. Next, a laptop computer is issued to the student by one of the NovaNET labs in Eagle Pass so the student can work on those lessons through the NovaNET instructional modules. A NovaNET access

program is loaded onto the student's laptop computer by the Eagle Pass NovaNET lab so the migrant student can log onto NovaNET from a remote site using a toll-free 800 phone number and the modem installed on the computer.

The NovaNET lab manager makes sure the student knows how to use the laptop properly and is able to trouble-shoot if something should go wrong with it. Each student issued a laptop is required to sign a contract that stipulates how the laptop will be used. This contract also ensures that the student will return the laptop in the Fall; the ISD has yet to lose a laptop. The contract is also an agreement with the teacher about the student's work over the Summer.

Migrant students are issued two toll-free numbers to access technical assistance support for their laptop: the NovaNET lab in Eagle Pass and the Texas Migrant Interstate Program (TMIP) in Pharr for back-up assistance. Technical support calls can include phone assistance, arranging a home visit from a technician, or mailing the student a program diagnostic card to insert into the computer. The toll-free number to the Eagle Pass NovaNET lab also enables the student to log into the NovaNET database to begin working on his or her assignments. If the student dials in at a prescribed time, s/he can interact instructionally with their NovaNET teacher using email. E-mail is also used for follow-up interactions between the student and teacher regarding the student's performance on the assignment.

The problem most often encountered by the laptop users is finding a phone line they can use to call into the NovaNET lab in Eagle Pass. The ISD tried to circumvent this problem by asking Southwest Bell to donate cell phones to the district for the students to use with their laptops. This proposal did not work because "rolling charges" would be incurred from connecting calls across multiple commercial telephone carriers that operate the telephone systems between the upstream sites and Eagle Pass. Currently, the ISD loads the NovaNET course modules on disk. Students then use their laptops to work on their assignments without needing access to a telephone. The student mails the diskette back to Eagle Pass when s/he wants final feedback from the teacher.

Project ESTRELLA. A federal technology grant to the Illinois Migrant Council, in collaboration with TEA and MOPI, provides Eagle Pass with an additional 10 laptop computers. ESTRELLA also provides "Cyber Counselors" in addition to funding laptop computers for remote access to NovaNET. The cyber counselors are college students who function as role models. These students e-mail the migrant students issued laptop computers as a type of cyber

"pen pal." The cyber counselors monitor the migrant student's schoolwork, give encouragement, and provide tutorial guidance.

TAAS-Prep. The Eagle Pass curriculum is aligned with the Texas state curriculum (the TEKS) and the statewide assessment (the TAAS). The remediation of academic skills in Eagle Pass thus tends to be synonymous with preparing students to take and pass the TAAS. The latter is generally referred to as "TAAS-Prep."

There are a variety of ways TAAS prep is provided in Eagle Pass. At its most basic, TAAS pretests identify student strengths and weaknesses; these pretests are followed by remedial teaching focused on skill improvement. Students also learn test-taking skills by taking TAAS practice tests through NovaNET. Migrant students also can take a TAAS-tutorial and a TAAS-After-School course. Finally, there is the Power-TAAS course, which is an intensive three-day TAAS-Prep class, offered to juniors and seniors to help them prepare for taking the TAAS. Student transcripts identify the kinds of TAAS-Prep taken (e.g., TAAS Prep Math or Reading; TAAS tutorial; TAAS-After-School).

University of Texas Migrant Program: Credit by Exam Model. The Texas Education Agency and the Texas Board of Education have approved all University of Texas Migrant Program courses for secondary school credit. These courses include the high school English courses that the University of Texas (UT) has developed. In Eagle Pass, the UT program used most is the Credit-by-Exam option. This is an independent home-study approach in which migrant students use a textbook and study guide developed by UT that is monitored weekly by a home visitor. The students work at their own pace and take a proficiency exam once they have completed the course material and their work has been reviewed satisfactorily by the local instructor. When the student is ready to take the exam, Eagle Pass ISD orders the appropriate test from UT. The exam is administered by the Eagle Pass ISD and graded at UT—Austin. The student must pass the test to demonstrate that s/he has mastered the subject matter and receives high school credit for the course.

The credit-by-exam approach is used mostly with in-school migrant students who stay in Eagle Pass over the summer. Although the UT English courses are more difficult than other alternatives for obtaining secondary English credits, they are the fastest way for migrant students to obtain such course credits.

Credit-by-exam can also be used by migrant students re-entering the ISD who want to acquire credit for subjects in which the student previously received instruction but either has failed or not completed. Additionally, credit-by-exam can be used to accelerate students who want credit for a course without waiting to take the course when offered as part of the ISD's regular schedule. This is an anticipatory option that migrant students can choose in completing courses before withdrawing from the ISD.

Project SMART: Home-Based Model. Project SMART (Summer Migrants Access Resources through Technology) is a national distance learning instructional program that is broadcast from the Region XX Education Services Center (ESC-20) in San Antonio, Texas, via satellite for eight weeks over the summer (June and July). It is designed for Texas migrant students, both those who remain in Texas in the Summer as well as those are who are temporarily residing in other participating states around the country. For those moving out of state for the Summer, enrollment in Project SMART is the responsibility of the receiving site (e.g., the Sidney Summer Migrant Education Project). For those staying in Eagle Pass over the summer, a home instruction version of SMART is available.

The home-based model is used in Eagle Pass in the Summer for all migrant students that stay behind and do not travel out of state. The Summer instructional broadcasts for each age group are taped by the ISD and then taken to the home on videocassette by a home visitor where they are shown. The home visitors will leave a tape on one visit and pick it up on the next, leaving a new tape at that time. Tapes from the previous year along with the TAAS-Prep tapes can also be taken into the home and shown if appropriate. In this way, SMART provides Eagle Pass with a summer school curriculum for the in-state migrant population.

Information Access. In addition to these instructional programs, school counselors need access to student records to ensure that migrant students' schoolwork—whether from Texas or outside of Texas—can be counted toward Texas state graduation requirements. The registrar's office in Eagle Pass documents student course credits in an official school transcript. Other important information about the student's school history (e.g., school attendance record, date of withdrawal from Eagle Pass ISD, final course grades, course completion status and the grade at the time of course withdrawal) is also recorded on the transcript. When students withdraw from school, this information is put on a withdrawal form.

Migrant families sometimes use the "red bag" to carry school documents such as transcripts and withdrawal forms with them when they travel out of state. These documents are

also available to receiver school systems on request. A number of methods are available for obtaining these documents: by telephone, mail, and fax; and through the Internet using the New Generation System (NGS). In Eagle Pass, four NGS records clerks enter, maintain, and update the NGS student data. The data are used mostly by counselors and teachers to record or check on secondary credit accrual data. Since the system does not provide standard reports with aggregated data, administrators do not often use it.

The Sidney Project claimed that many of the NGS records from Eagle Pass were missing secondary credit accrual data. This is quite plausible since the NGS data were processed by ESC-20 during most of June. It takes about a month from the end of the school year (end of May) for course grades to be processed through the ESC-20 in San Antonio and become available on NGS to upstream states. The earliest that Montana could have gotten complete NGS data for course planning purposes would have been the end of June, too late to guide course planning. The only other way for upstream states to obtain course completion and course grade information is not reliable: if the family brings a withdrawal form with them when they enroll for the Summer, which means the Summer project would have to contact Eagle Pass.

Promising Practices in the Sidney Summer Migrant Education Project, Sidney, Montana

In its coordinative efforts with Texas, Montana essentially adopted a parallel system of the technology-based instructional programs and then implemented them locally in its Summer project sites. Therefore, the instructional approach used in Sidney mirrors the instructional approach of Eagle Pass.

In Sidney, migrant education uses a technology-based to promote interstate coordination and continuity of instruction. Both the SMART and NovaNET curricula used in Sidney are based on the Texas state curriculum and offer credit-bearing courses approved by the Texas Education Agency and accepted by Texas schools. Telecommunications technology is used in the SMART project component to promote continuity of instruction with the Texas curriculum through lessons broadcast by satellite from the Region XX Education Services Center (ECS-20) in San Antonio. Sidney's use of laptop computers and a temporary Summer computer lab allows Texas-based migrant students in Sidney to access the NovaNET curriculum back in Texas.

Project SMART: Site-Based Model. The Sidney Summer Migrant Project implemented Project SMART's site-based model in which students could participate interactively in a classroom setting with the SMART television teacher or view the instruction later on videotape.

The instructional focus of the SMART broadcasts varied according to the students' grade level: integrated math, science, and language for the elementary school students; science for the middle school students; and economics for the high school students. Five instructional strands were offered to students at Sidney:

- Preschool: Language Development in Spanish & English
- Early Elementary: Integrated Math, Science, & Language
- Upper Elementary: Integrated Math, Science, & Language
- Middle School: Science
- High School: Economics, TAAS Math Preparation

Each interactive SMART class utilized a local teacher—the "SMART Partner"—to prepare the students for the instructional broadcast, to facilitate interactions by telephone with the SMART television teacher back at ESC-20, and to conduct follow-up instruction and assessment.

Only the high school courses are offered for credit. Each Summer, one subject is taught; in Summer 1998 this subject was Economics.

NovaNET. The NovaNET lab at Sidney provides computer-assisted instruction in a broad range of credit-bearing courses at the middle school and high school levels. As at Eagle Pass, the NovaNET lab consists of about 16 desktop personal computers, running off a server, that access the TEKS-based NovaNET curriculum in Eagle Pass through fiber-optic telephone lines via each computer's modem. The courses offered in Sidney are the same ones offered in Eagle Pass and in other Texas school districts that implement NovaNET labs.

Each NovaNET course consists of a series of interactive modules. Students move at their own pace and are provided feedback by the computer on each lesson attempted. The computer also records the lessons attempted, time spent on the lessons, dates, and assessment outcomes for the lessons. A lesson must be passed in order to move to the next lesson in a module's sequence of instruction. The two high school instructors supervise the NovaNET lab each night, monitoring the students to keep them on task if necessary and to provide assistance to students who need it. High school students attend the NovaNET lab in the evening after their work in the

fields. Testing preparation and administration for the Texas Assessment of Academic Skills (TAAS) is also provided through the computerized NovaNET curriculum.

Laptop Computers: Project ESTRELLA. Laptop computers in Sidney are provided by the federal technology grant administered by the Illinois Migrant Council. If students can access a telephone line, they can use the laptops just about anywhere. This enables them to connect with the Internet, communicate with their teachers in Texas over the Summer, and communicate with their college cyber counselors in San Antonio.

University of Texas Correspondence Courses. As stated earlier, NovaNET is good for basic skill applications but less well adapted to the development of advanced skills. When students need credit-bearing courses like English literature, the Sidney project arranges an independent study correspondence course through the University of Texas Migrant Program (UT). The University of Texas Migrant Program provides the course material and books; the Sidney teachers supervise and grade the student's UT work while they remain in Montana. When the student leaves Montana, s/he mails the work to UT and the UT staff grades the student's work and provides feedback. Sidney uses the UT Correspondence Course rather than PASS (the Portable Assisted Study Sequence) because Texas schools readily accept the UT courses for credit. Texas schools will accept PASS courses, but additional staff work is required to ensure the PASS courses are appropriate for the student.

Information Access. As at other sites profiled in these case studies, a number of approaches were used to communicate information so that instructional planning for migrant students can be eased. Student information can be accessed through the New Generation System (NGS), a comprehensive database of education and health information on more than 200,000 migrant children that can be accessed by subscribers through the Internet. Information is also carried by migrant families in the student record transfer packets (commonly referred to as the "red bags") issued by Texas migrant programs. Four of the 24 secondary-level Texas-based students (or 17 percent) provided school records and report cards from Texas when they arrived in Sidney during the school year that this study was conducted.

When information is not obtainable through NGS or a record transfer packet, school staff may resort to telephone and fax. A Sidney staff member, (e.g., one of the secondary teachers or the program director), will call the child's homebase school in Texas to ask that they update the student's NGS record or fax the desired information to Sidney if that would be faster (about half of the secondary students needed their NGS information updated when they arrived in Sidney).

The Sidney secondary school staff also calls Texas home-base school principals and guidance counselors to review student needs and summer school course options so that the courses the students take in Montana are approved for credit by their Texas school.

Promising Practices: A Migrant Parent's Perspective

Ernesto Sr. and his family often travel to find seasonal employment in agriculture. Through his participation in parent involvement events and opportunities, he is also very familiar with the Migrant Education Program. In interviews with researchers that were conducted in both Sidney and Eagle Pass, Ernesto Sr. provided insight into both the challenges facing migrant families and the way the migrant program serves his school-age children. The material that follows is a synthesis of these interviews.

Ernesto Sr. arrived in Montana from Eagle Pass the first week in June 1998 to work the sugar beet fields. He remained in Montana for approximately six weeks and then returned to Texas for a month to pick grapes in the vineyards around Austin. He then packed up his family again and traveled to Minnesota to work for several weeks in the vegetable canneries after which the family traveled to Maine for the blueberry harvest in August. In the Fall, Ernesto Sr. traveled with his eldest son Ernesto Jr. all the way across the country to Washington to dig potatoes, which they did until November. Ernesto Sr. and his son returned to Eagle Pass a week before Thanksgiving. Ernesto Sr. will resume his migrant cycle in June 1999.

Ernesto Sr. has eight children, seven of whom he brought with him to Montana in June 1998. The Eagle Pass ISD issued a laptop computer to his family for use by several of his high school children over the summer. His son (Ernesto Jr.) had failed algebra and English IV as a senior in the 1997-98 school year and was issued a laptop specifically so he could work on making up the 1.5 course credits he needed in these subject matter areas. Two of Ernesto Sr.'s daughters were also allowed to use the laptop computer, but for acceleration and enrichment purposes. Maria (a sophomore next year) was provided coursework in world history and Ana was assigned work in English IV. Ana would have been a senior in the academic year that followed this study; she is trying to earn senior-level English credit with the aid of the laptop computer. In addition, the Sidney Project issued Ernesto Sr.'s family a second laptop computer that his younger children could use at home over the summer (e.g., the children aged 5 and 9).

Ernesto Sr. has had experience with the "red bags" which he said were initiated in 1993 following the federal decision to terminate the MSRTS. Initially, the bags were a temporary

measure instituted by Texas to transfer student records with upstream states receiving its migrant students. Ernesto Sr. characterized the red bags as a way to help migrant families take responsibility for records transfer with schools. Migrant parents are encouraged to use the bags to carry their children's school records to their next destination during interstate migrations where they are supposed to turn the records over to the receiving schools.

Ernesto Sr. knows that the NGS has since superseded the red bags. Although Ernesto thought that MSRTS was effective in spite of its flaws, he thought the NGS might be an improvement over the MSRTS because of the speed with which relevant information can be obtained.

When asked to discuss the kinds of educational problems that migratory farm worker families encounter, Ernesto Sr. mentioned that many families do not re-enroll their children in school once they arrive in a new state. He also mentioned that their children do not retain knowledge and skills when they are out of school for a while; they lose their motivation to re-enroll, particularly if credit accrual problems are on the increase. These credit accrual problems, Ernesto Sr. observed, often lead migrant students to drop out of school. He thought the laptops could help his children catch up on coursework they had missed while migrating and to stay current in their credits.

Asked how the laptops had helped his children, Ernesto Sr. used his son as an example. Ernesto Jr. had been denied high school graduation because of credit deficiencies (1.5 credits): a half credit in algebra and a full credit in English IV. Eagle Pass ISD issued him a laptop for the summer of 1998 and assigned him lessons in both of these deficiency areas, including relevant NovaNET lesson modules. He did the lessons (at least some of them) on the laptop and downloaded his work to his summer school teacher in Eagle Pass who graded the work from Texas. Ernesto Sr. was hopeful that Ernesto Jr. would graduate from high school at the end of Summer 1998. The migrant education staff doubted he would complete the 1.5 credits by August, and it turned out they were right.

A follow-up interview was conducted with Ernesto Sr. in Eagle Pass, Texas, in November 1998, after he and his son had returned from their summer migrations. Ernesto Jr. ended up returning to Eagle Pass ISD in 1999 and hopefully will graduate at the end of the 1998-99 school year. In November 1998 he was still working on his English and math assignments on the laptop and had not yet graduated. He needed a full year of senior English and a semester of Algebra II; over the Summer and Fall he had made little progress in completing his studies.

Ernesto Sr. said that the biggest problem about laptop use had been access to a telephone while on the road between Montana, Texas, Maine, and Washington State. Ernesto Jr. also had little time or energy left to use the laptop computer after spending 12-16 hours a day working in the fields. Since returning to Eagle Pass in November, Ernesto Jr. had been working as a day laborer in Mexico harvesting hay. He planned to re-enroll at Eagle Pass ISD in the second semester and finish the 1.5 credits so he could graduate in May. After graduation, Ernesto Jr. planned to enlist in the Army, according to his father. The son apparently believed the Army would provide him with some valuable training since he is no longer very interested in continuing as a farm laborer. Ernesto Jr. also apparently hoped to acquire some college tuition money by joining the Army.

In general, Ernesto Sr. thought the instructional technology used in migrant education (i.e., the laptop computers, NovaNET, and Project SMART) helped his children stay in school and learn. Three of his children (Ernesto Jr., Ana, and Maria) shared the same laptop computer and used separate passwords to access NovaNET courseware over the summer.

Discussion

The instructional initiatives and technological innovations of the Migrant Education Programs in Texas and Montana have resulted in a congruent curriculum and extended school year for Texas-based migrant students who travel back and forth between Montana and Texas every Summer with their families. These developments have been made possible by the state-level leadership and interstate collaboration that have been exhibited by Texas, Montana, and other partnering states such as Illinois over the years. Arguably, the services provided by the Sidney Summer Migrant Program could not have occurred, much less been maintained, without the relationships that grew out of these collaborative efforts among educators and the various partnering agencies.

The Montana Office of Public Instruction (MOPI), the Texas Education Agency (TEA), and the Texas Migrant Interstate Project (TMIP) have a history of formal collaboration which has resulted in the technology-based approach to instructional continuity and records exchange in migrant education. This includes the annual televised Spring training conference held in Billings, Montana, sponsored by TEA/TMIP/MOPI for MOPI staff on SMART, NovaNET, NGS, and various issues in migrant education (e.g., student identification, the Red Bag, credit accrual changes and problems, and TAAS prep and administration). The Fall credit accrual resolution conference, hosted every year in Texas by TMIP, brings together school administrators, counselors, and registrars from partnering districts and states to resolve course credit issues and problems. This personal contact has also made it easier for staff from different states and school districts to contact each other to resolve issues when they arise.

As a precursor to implementing the various technological solution strategies, the MOPI-TEA-TMIP collaboration first focused on aligning Montana's migrant education instruction with the Texas State curriculum (the TEKS) and assessment (the TAAS). Once the curriculum and assessment were aligned, instruction was implemented essentially through NovaNET and SMART. These projects had customized their curricula to the TEKS specifications approved by the Texas Education Agency. Customizing these curricula to the needs of Texas-based migrant students required collaborative relationships between TEA/TMIP/MOPI as well as curriculum and software developers at NovaNET Inc., Apple Computer Inc., Montana MET-Net, Texas Tenet, ESC-20 in San Antonio, and the Southwest Regional Educational Laboratory.

Innovations in distance learning and computer-assisted instruction also required that districts build upon a pre-existing technological infrastructure. Without software innovations developed through the University of Illinois that were subsequently custom-fitted to state curriculum specifications through private sector marketing efforts by NovaNET Inc., the State Education Agencies in Texas and Montana would not have had a computerized state-approved curriculum upon which to align their own curricula. Similarly, without the convergence of instructional television and satellite broadcasting technology through prior work at the ESC-20, Project SMART would not exist.

The Sidney Migrant Project and the Eagle Pass ISD (as well as La Joya, Weslaco, and Pharr ISDs) also have a long history of cooperation, made possible by collaboration at the state level. Specifically, this collaboration between TEA, TMIP, and MOPI has resulted in the use of the NovaNET lab concept in Montana as well as Project SMART. MOPI's relationship with the Illinois Migrant Council also led to the development and funding of Project ESTRELLA which supports an extension of the NovaNET lab through the use of laptop computers.

Eagle Pass's migrant students face problems, particularly at the secondary level, in accruing credit and receiving enough sustained academic instruction to take and pass the TAAS. Locally, the Migrant Education Program addresses those problems through a combination of NovaNET, laptop computers, SMART, the University of Texas Credit-by-Exam option, and various course make-up options that include the Saturday Graduation Enhancement classes for migrants who return late to Texas. Counselors and teachers use NGS for obtaining information on courses taken or completed at other sites; this information guides their instructional planning in ways that benefit the students.

Like the Sidney Summer Migrant Education Program, Eagle Pass's migrant services operate in the context of interstate coordination and collaboration, which has made these services possible. While local initiatives are needed to implement the services, interventions on the scale of SMART, ESTRELLA, and NGS required collaboration and dedication of resources at higher institutional levels.

Only Project SMART has been formally collected student participation and outcome data. According to an evaluation report prepared by META Associates (September 1997), 18 states (including Montana) implemented SMART in 1997. Sidney was the largest participating SMART site in Montana, with the largest student participation at the preschool and elementary school levels (which are the levels with the greatest migrant student enrollment). Sidney was

also the only site in Montana to offer a secondary-level SMART program for in-school youth at grades 9-12. The META Associates Report indicated that nine secondary students in Sidney participated in SMART courses in the summer of 1997. Four of these nine students (44 percent) received a half credit for their participation in the 1997 SMART government course. The other five secondary students took one of the SMART non-credit-bearing TAAS Prep courses.

META Associates also reported an evaluation of Montana's pilot implementation of NovaNET in 1997. Data were collected on migrant student participation in temporary NovaNET labs in three sites in Montana (Sidney, Billings, and Hardin) as well as on migrant student participation in NovaNET through the use of laptop computers. Interview data suggested that one of the main benefits of NovaNET—through either the computer lab or the laptop computers—was its capability to help teachers individualize instruction. Anecdotal data, however, suggest that one of the main drawbacks to migrant students' use of laptop computers as an instructional aid while on the road is access to a telephone line.

The technological innovations in distance learning and computer-assisted instruction that have been implemented in Texas and Montana have the potential to promote instructional continuity for Texas-based migrant students. Eagle Pass and Sidney will need to keep their hardware and software upgraded so that they can stay current with the technical specifications required as the technology for distance learning and computer assisted instruction evolves and improves. This will require funds to replace and update hardware and software.

Major challenges to maintaining the operation at both ends include attracting qualified technical staff to trouble-shoot and maintain the hardware and software applications. Attracting qualified staff to the Eagle Pass area, for example, is difficult because of the low salary offered by the ISD and because of the general limitations of the border area. Telephone line access is another major obstacle. Maintaining TMIP's technical assistance role with the laptops and NovaNET computer applications appears crucial to the continued successful implementation of these interventions.

NGS student data also needs to be updated in a more timely fashion. Currently, upstream states can receive course completion and course grade information (a) if the family brings a withdrawal form with them when they enroll for the Summer or (b) if the receiving site contacts the sending site. The first alternative requires continued use of the red bag system and parent responsibility for school information when transferring between school systems. The latter

largely depends on maintaining close working relationships between key records staff of originating and receiving sites.

Donna Independent School District, Donna, Texas;
Van Buren Intermediate School District, Lawrence, Michigan;
and Manatee County Schools, Bradenton, Florida

The Donna-Van Buren-Manatee County case, like the case of Eagle Pass-Sidney, illustrates how local districts rely on direct communication and interstate mechanisms such as the Texas Migrant Interstate Program and the Portable Assistance Study Sequence to enhance the continuity of education for migrant students. This case differs from the others in that it involves three school districts, although reciprocal arrangements are not in place among all three. Van Buren ISD has relationships with Donna ISD, Texas, and with Manatee County schools in Florida. However, the Texas and Florida sites do not have direct working relationships. In particular, this case provides an illustration of the role personal relationships play in promoting institutional understanding of shared responsibilities.

The Partners

Donna Independent School District, Donna Texas

Donna Independent School District (ISD) is located in the lower Rio Grande area of Texas, about 240 miles south of San Antonio and just east of McAllen, Texas. This section of Texas is known as the Valley and is home to the largest concentration of migrant families in the nation. While the economic base of the area is diversifying, agriculture remains the primary industry. Cotton, sugar cane, and vegetables are key crops. Migrant labor is not used for cotton and sugar cane. Migrant laborers work with vegetables, picking predominantly onions and cabbage. Other crops that often employ migrant workers in the area include tomatoes, carrots, bell peppers, and lettuce. Few other employment opportunities exist for migrant workers who return to Donna. Non-migrant residents often are employed in agricultural-related work (preparation of fields, driving the tractors), the local school system, or small businesses.

The district provides educational services to three-year-olds through grade 12. The district supports 10 elementary campuses, two middle schools, and one high school. Based on the 1997/98 Academic Excellence Indicator System from the Texas Education Agency (TEA), student enrollment in Donna ISD peaked at 10,500. This enrollment includes 9,698 Hispanic students, 146 Caucasian, and 656 who are classified as Asian, Pacific Islander, or Native American. Eight-eight percent of the student population is economically disadvantaged. Fifty percent (50 percent) of the students are identified as limited English proficient (LEP).

In general, the community holds high expectations for its students that include high school graduation followed by matriculation in college. But migrant students were not especially successful on the Texas Assessment of Academic Skills (TAAS). Fifty-eight percent passed Reading, 60 percent passed Mathematics, and 54 percent passed Writing as compared to the state standard of 90 percent for each subject area. Surprisingly, the average attendance rate for migrant students is 93 percent, just one percent below the state standard of 94%. The state standard for a school district graduation rate is 90 percent. In 1996, 71 percent of the migrant students graduated from Donna High School; in 1997, 87 percent were graduated. In 1997, only 55 percent of the migrant students who took the TAAS exit exam passed (with just 8 percent of the eligible students absent on the test date). Only 39 percent of the migrant students took a college admissions test (the state standard is 70 percent).

As of December 15, 1998, 3,822 students were eligible for the Migrant Education Program in Donna. A total of 1,415 students were served in Donna's Summer migrant program. A large percentage of migrant students move annually to secure seasonal work in agriculture. For FY 98, while most of the districts in the valley are losing migrant students (perhaps due to less intensive identification and recruitment efforts, higher graduation rates, and permanent re-locations to another state), Donna increased slightly (1.12 percent) via its efforts in agency coordination.

Migrant workers from Donna usually travel directly to work sites in Michigan, without stopping for other kinds of work. Many of the families go to the southeastern area of Michigan for cucumber, cherry, asparagus, and grape harvests. Some migrant families who leave during the Spring months, send for their children after school is out, and some families return before school starts again in the Fall. Others may not return until November. Based on data obtained in Van Buren, 500-825 students from Donnas ISD migrate to southwest Michigan, with 375 of those children enrolled in Van Buren ISD.

Donna ISD has a history of communicating with staff at the Van Buren ISD to improve the continuity of instruction that migrant students experience. This cooperation, often supported by the Texas Migrant Interstate Program (TMIP), has resulted primarily in school transition services facilitated by migrant specialists, the use of instructional programs specifically for credit accrual, and the transfer of student information.

Van Buren Intermediate School District, Lawrence Michigan

Lawrence, Michigan is nestled in lower southwestern Michigan. The town is located off Interstate 94 in a rural part of the state where farming remains the number one industry. Over the past 30 years, the area has required the services of a significant migrant labor workforce. Initially, strawberries were the primary crop that required pickers. Today, strawberries have been replaced by cucumbers; with potatoes, blueberries, apples, and crop work in vineyards and nurseries contributing to the on-going need for migrant workers. New agricultural technology has reduced the volume of work for migrant workers, but migrant labor continues to be needed. The majority of growers in the area consist of family-owned farms. Currently, the largest grower in the area is John Faulkner Farms, which recruits 300-400 migrant families per year for his cucumber harvest; a similar operation exists in Florida.

The Van Buren Intermediate School District (ISD) serves 11 school districts. Its migrant education project provides both school year and summer-term services. School-year services are provided to migrant students who enroll in 28 local schools during both the Fall and Spring months. Most of these migrant students do not complete more than one grading period in the Michigan public schools. Seven itinerant resource teachers provide services to migrant children by helping with school transitions, providing in-school advocacy, and offering tutorial assistance. The summer project's services include preschool/day care services, a summer school enrichment program for K-8, and an evening program for older youth. In 1997, 1,420 students were eligible for the Migrant Education Program; 780 students were enrolled in either school year and/or Summer-term programs. The Summer program had an average daily attendance of 372 students.

Although the home base of most migrant families continues to be either Texas (43 percent of the identified students) or Florida (30 percent of the identified students), increasing numbers of migrants are originating from Mexico (33 percent in 1997). With this change, the percentage of students who are limited English proficient (LEP) is also on the rise.

Van Buren ISD has a substantial history of working with several school districts in the Rio Grande valley (e.g., Brownsville, Donna, Weslaco, Pharr) and the Texas Migrant Interstate Project (TMIP) to improve the continuity of instruction that migrant students experience. This cooperation has resulted in teacher exchanges, participation in each other's conferences and pre-service training programs, use of credit accrual programs, the transmittal of student information, the administration of the TAAS in Michigan, school transition services, and the transfer of student information. Recent trends in worker recruitment efforts have increased the

significance of coordinating with school districts in the State of Florida (Manatee, Hillsborough, & Polk Counties).

Manatee County School District, Manatee County, Florida

Manatee County lies along the Gulf of Mexico between Sarasota and Tampa. The county was named for the large, easygoing aquatic animal known as the West Indian Manatee. Along the coast, small villages and resort communities populate the barrier islands and bay shores. Inland, in the eastern part of the county, lies rural countryside—an area known for its fruit and vegetable production.

Six major population centers are located in the county (Bradenton, Palmetto, Anna Maria, Holmes Beach, Bradenton Beach, and Longboat Key). The two largest communities, Bradenton and Palmetto, are on the mainland. Bradenton, the county seat, is the county's largest city with a population of close to 50,000. In the 1940s, food processor Anthony Rossi settled in Bradenton and founded Fruit Industries, a company known worldwide today as Tropicana North America. Palmetto is the agricultural center of the county and is noted especially for tomatoes.

The Manatee County School District has 39 schools that include 26 elementary schools, seven middle schools, five high schools and one vocational technical center. The school district serves about 34,000 students in pre-kindergarten through twelfth grade.

Manatee County's migrant student services include a pre-kindergarten program, an in-class tutoring program for grades K-2, and an after-school tutoring program for students in grades 9-12. In addition, the county's Migrant Education Program supports academic counseling, parental involvement, and outreach and referral services.

Every year, more than 2,000 migrant students—about seven percent of the total student body—come to Manatee County schools after their families have worked in other parts of the country in seasonal agriculture. In 1998, more than 1,400 migrant children had registered in Manatee County schools since classes began in late August. At least 1,000 more were expected to enroll throughout the early Fall. Most of the incoming migrant families live in the rural farm camps of Palmetto and Myakka City. The owners of Faulkner Farms of Lawrence, Michigan have located their Florida-based farm in Myakka City. Many of the migrant families spend the Fall, Winter, and Spring working at the Faulkner Farms site in Myakka and then move to Faulkner Farms in Michigan for the summer.

Van Buren ISD in Michigan is the largest recipient of migrant students from Manatee County, largely because Faulkner Farms provides labor camp housing for migrant families it employs in both states. Faulkner Farms itself operates seasonally in both states, growing and harvesting a variety of fruits and vegetables; thus there is some continuity of employment as well.

Problems Facing Migrant Students

"Really, mostly the problems {dealing with educational continuity} are at the secondary level." (Migrant Education Program Coordinator, Donna, Texas)

The main problem for home-based Texas and Florida migrant youth who are enrolled in the secondary grades is accruing credits necessary for graduation. In both Texas and Florida, students who migrate often do not complete their course of study in either their home-base state or the receiving state. With each incomplete course, migrant students repeatedly must try to catch up with their peers in their schoolwork. Over time, the accumulation and effects of incomplete coursework lead to problems with mastery of subject matter, grades, and satisfactory course completion, which in turn affect attendance and enrollment in school, credit accrual, grade promotion, and high school graduation.

Donna ISD and Manatee County reported that the problems for secondary-level migrant students begin when these students either withdraw early withdrawal from school and/or return late. With the typical early withdrawal, migrant students miss the last six weeks of school (mid-April through the end of May). With the start of schools scheduled for mid-August, if the students return in October or November, they may miss yet another six or more weeks of school. Recent efforts of high schools to install block scheduling have compounded the problem as differences in amount of the content covered are substantial when students transfer from a course with a traditional schedule to a course with a block schedule and vice versa.

The ultimate effect of these events on a student's education depends on what happens in both the receiving state (in this case, Michigan) and state of origin. If the student does not enroll in a school in Michigan and/or supplemental instructional opportunities are not available, course credit for the prior semester's work in Texas or Florida will not be granted or the student will be behind in the current year's work. If the student does enroll in a Michigan school or summer program, this schoolwork may have little utility if the student cannot take the appropriate

courses; if the course content is different between sites or out-of-sequence; and if partial credit or full credit for coursework is not issued or accepted by Michigan, Texas, or Florida schools.

In addition, upon return to the school district of origin, if there are no opportunities for the students to catch up on the incomplete courses, they will probably remain behind in their schoolwork. The negative impact of these events quickly escalates for secondary-level students who are already at risk of educational failure from other factors related to poverty and mobility. Without intervention, the odds of early school dropout or failure to graduate increases.

Although data were not presented to confirm their beliefs, migrant educators in both Donna and Van Buren do not view the effects of migration on continuity of instruction as being as problematic for elementary grade-level students as it is for secondary-level students. They believe that the educational gaps or deficits created by early withdrawal and/or late entry can be overcome by the remedial services commonly offered at the regular or summer elementary school.

For example, district officials in Donna believe that the elementary school teacher can overcome the time and learning lost during the regular school year using remedial services commonly found within the school. Upon re-enrollment, the elementary teacher is expected to find out what skills students bring from the receiving state. Based on this assessment, if the student is behind or missing skills, the teacher turns to a variety of in-school strategies, such as homework packets or the use of a tutor.

Similarly, migrant staff in Michigan view problems with instructional continuity as considerably more severe for secondary-level students. The Van Buren staff believed that the general pre-school, elementary school, and lower middle school curriculum require less precision in designing appropriate instruction than is needed for the subject matter-specific courses at the secondary school level.

The major problems experienced by secondary-level migrant students originating from Donna and Manatee have been: 1) the loss of instructional time, 2) the lack of information to guide best placement in Van Buren ISD's summer program and regular school year services, and 3) the lack of procedures to ensure that students receive credit for work done at Van Buren when they arrive at schools in Texas and Florida. Both educators and parents feel a sense of urgency that these problems be solved.

Van Buren's staff were very aware that parents (and to some degree, students) wanted to make sure they received appropriate instruction. These parents also wanted to ensure that upon their return to schools in Texas or Florida, their children received credit for work they did in Michigan.

Promising Practices

The primary needs for interstate coordination among Donna, Van Buren, and Manatee focus on helping secondary students to catch up on instruction missed due to a migrant move, to identify the appropriate instructional programs and/or courses of study needed, and to ensure secondary-level credit accrual.

Promising Practices in Van Buren ISD

Efforts to meet the needs of children who migrate to Lawrence, Michigan from Donna, Texas start with a program of information-sharing. During the Winter months, Van Buren staff use their own database to produce lists of students with prior summer enrollments in Michigan. These lists are often hand-carried by the site administrator to interstate events/meetings in Texas. At these meetings, the site administrator asks the appropriate district official in Texas to check on student attendance at their schools. If the children are enrolled, Van Buren ISD staff request information on the student's grade level placement, test results, and courses of study.

This information is used to help organize Van Buren's Summer program. The Summer project operates for approximately 40 days (beginning in late June and ending in early August). The project uses the pleasant, well-maintained Van Buren ISD campus facilities which are set back from a rural road in Lawrence. The air-conditioned campus includes three buildings that house the administrative offices, instructional classrooms, related supportive service facilities (cafeteria, gymnasiums, auditoriums) and a technology/vocational center. The full-day Summer project provides services to children who range in age from two and one-half years to 21 years.

The Summer project's services include preschool/day care services, a summer school enrichment program for K-8, and an evening program for older youth. The K-8 curriculum is not tightly coordinated with instructional programs in Texas or Florida. Basic instruction in reading, math, and ESL is provided to enrolled students. Teachers administer an informal assessment to identify student needs. Each teacher develops thematic units that draw upon available resources.

The evening school program is eight weeks long, with classes held Monday through Friday from 6:30 p.m. to 9:00 p.m. It provides enrichment services (e.g., instruction in life skills, exposure to computers) to middle school students. Secondary-level youth are offered opportunities to make up course credits or to work on subjects that they are failing. New arrivals to the U.S. can develop and improve their English language skills. In general, Van Buren ISD staff provide assistance to help migrant students complete a Portable Assisted Study Sequence (PASS) correspondence course or a correspondence course from the University of Texas. One-half credit is earned in a subject when a secondary-level student successfully completes a given course. The evening school also provides opportunities for students to take the TAAS. After the close of the summer program, continued support is provided to individual students who are completing summer coursework.

For students who remain in Lawrence and re-enroll in school when it opens in September, migrant/bilingual resource teachers who work throughout the ISD help with school transitions, provide in-school advocacy, and offer tutorial assistance. These staff help to improve the academic counseling that secondary-level migrant youth receive that determines which school-year courses they should take while they reside in Michigan.

Upon withdrawal from Van Buren ISD, the resource teachers are expected to ensure that an informal transcript (with days enrolled, days present, and some test data) is prepared and if possible sent back with each student as they return to Texas or Florida. Upon receipt, Texas or Florida school officials can request a formal transcript that will contain more information if the student was registered through the first grading period (nine weeks). Essentially, the migrant/bilingual resource teachers act as a coordinating mechanism in that they negotiate with both local educators and the sending district on behalf of the migrant students.

The process of exchanging information between districts is critical to ensuring that the needs of secondary-level migrant students are met, but it is not easily implemented. Previously, the MSRTS never fully gave Van Buren ISD staff the information they needed to identify the special services the secondary-level youth needed or the credits they needed to graduate. The information also was insufficient to convince the sending school that students had completed particular work. Van Buren ISD staff reported to researchers that they always had to pick up the phone and make a personal contact.

Occasionally, parents who returned to Van Buren the next summer would complain that they took the paperwork back to the originating district with no result. Notwithstanding the time

elapsed, Van Buren ISD staff then would call the building principal or school counselor and try to resolve the credit accrual issues with the school.

The researchers observed that person-to-person information exchange is not always successful the first time and often requires extensive follow-up activities before actual information is received. One staff member stated that "the process is not perfect—you must continue to bug people to send information." For example, requests for information that were sent to several schools in Texas did not result in responses until a representative from the school district attended the previous summer's pre-service training session for Van Buren ISD staff. The representative then was given another list of Texas students and he did send back all of the students' records.

The Migrant Education Program site administrator at Van Buren ISD is convinced that personal relationships are a critical ingredient for successful interstate cooperation and coordination. Consequently, staff time and money have been expended to increase the frequency of person-to-person interactions between Van Buren ISD staff and district personnel in Texas. Van Buren staff participate in the annual meetings and conferences held in Texas where they can meet face-to-face with their Texas counterparts. Officials from key originating districts are invited to address Van Buren's summer program staff during pre-service and in-service training. Teachers from the originating schools are hired to work in the Van Buren ISD summer program, and then act as advocates for their students upon their return to Texas. Clearly, continuous networking to develop and sustain relationships and follow-up activities are viewed as prerequisites for effective interstate coordination.

It is also important to note that the staff of the Texas Migrant Interstate Project (TMIP) area valuable resource in these information-sharing efforts. The Texas Migrant Interstate Project plays an important intermediary role with cases where 1) direct communication with a school did not work or 2) it was not possible to contact a district official because the school was officially closed for the summer. If a personal contact with school building personnel in Texas previously has not been established, it has become more efficient to call TMIP staff and have them initiate contact with the building-level personnel. Texas Migrant Interstate Project staff are rated highly by the Van Buren staff for their follow-up in obtaining student information and/or resolving credit accrual difficulties.

The year before this study was conducted, the relationship model was extended to Florida through the personal initiative of one teacher. Using her own funds, the evening program

coordinator traveled to Florida during her winter vacation to introduce herself to counselors at key originating schools as well as to PASS program officials. Based on agreements she struck with Florida educators, Van Buren's evening program coordinator faxed school officials in Manatee County and Hillsborough County lists of students who had prior enrollments in both the Van Buren ISD and the two counties in Florida. She asked the local migrant counselors to evaluate the students' transcripts at the home-base school to ascertain what the migrant students would need at the end of the year to complete their course work and, if possible, to start a PASS course. Unfortunately, the Hillsborough relationship broke down. In Manatee, however, information on students who had started PASS courses was delivered to Van Buren ISD when the Manatee contact person arrived for the Van Buren ISD pre-service. Eight of the 28 students identified with a history of traveling to Van Buren from Manatee actually worked on a PASS course based on information shared between the school districts. In this case, staff of the Florida Migrant Interstate Project (FMIP) also drew praise for their support in helping the districts come together. After working with the PASS program, Van Buren staff did suggest that the quality of PASS program materials could be upgraded and they were unsure how tightly the materials were aligned to Florida's new academic standards.

No formal evaluation has been conducted of either the process or the outcomes of interstate coordination activities between Van Buren ISD in conjunction with Texas and Florida. Nevertheless, the Van Buren site administrator firmly believes that supporting older youth with secondary credit accrual activities is important to their graduation because "those success stories will trickle down and get the family to be more conscientious about sending all of their kids to school and expecting them to graduate."

Promising Practices in Manatee County, Florida

When the evening summer program coordinator from the Van Buren Schools came to Manatee County over the Christmas vacation to visit the migrant families working at Faulkner Farms, she sparked a relationship between the two districts' migrant education programs. The directors of the two programs met subsequently at the 1998 national migrant conference. At this meeting, they discussed their mutual desire to have a better relationship with Faulkner Farms and with each other in order to work more effectively with the migrant families as they moved back and forth between Florida and Michigan. An informal agreement was struck to ensure that student information from the Manatee County teachers would be shared with the Summer school teachers in Michigan for the Faulkner Farms children they both served. In June 1998, the Manatee County Migrant Specialist visited the Van Buren ISD Summer school program shortly

before it began for the Florida students. She took with her student information forms on the Faulkner Farms children enrolled in PASS programs and at Myakka City Elementary School in Manatee County. The PASS form provided Van Buren staff with a description of the courses in which secondary-level migrant students had enrolled.

The Portable Assisted Study Sequence (PASS) Program was developed in California in the late 1970s as an approach to secondary school dropout prevention. Florida began implementing PASS in 1993 after determining that PASS courses met Florida Public Education curriculum requirements. Florida's PASS Program offers 32 credit-bearing courses in art, health, language arts, life skills, mathematics, science, and social studies. These semester-length courses consist of five units of study and students must pass all five unit tests to get credit for the course. The Portable Assisted Study Sequence is a collection of semi-independent public education courses for students in grades 9-12. The program allows students to participate in high school classes and accumulate credits toward graduation through home-study or as they travel with their family for employment-related reasons. In Florida, the dominant PASS model involves home-study for intra-state migrant students whose families tend to pull them out of school during the academic year for agricultural or fishing work with the family. This work takes place either in the local school district or involves a temporary move to another county in Florida.

Information summaries on elementary grade students were developed for Van Buren in 1998 by the guidance counselor at Myakka City Elementary and were designed to transmit student performance information useful for summer school placement and instructional planning (e.g., grade level, reading level, name of basal text). This new procedure now supersedes the old procedure in which Van Buren ISD staff asked the FMIP retroactively to provide any known information about migrant children who had arrived in Michigan from Florida.

The promise of greater effectiveness in working with interstate migrant students prompted Manatee County to explore building a similar relationship with school districts in Texas. Co-funded by the County's Migrant Education Program and the Florida Interstate Migrant Program, Manatee's migrant specialist and other staff traveled in February 1997 to the Rio Grande Valley to observe the migrant programs in Donna, Weslaco, LaJoya, and Brownsville. Their objective was to develop personal relationships and knowledge of schooling practices in Texas for the future benefit of migrant students shared between Florida and Texas.

<u>Promising Practices in Donna, Texas</u>

In Donna, Texas, migrant funds may be used for a range of interventions that meet the needs of migrant students, fit with the campus improvement plan, and mesh with the mission and goal of the school district. All 13 campuses are Title 1 "schoolwide" programs. Donna's Migrant Education Program coordinator does not see a problem with the schoolwide approach to serving migrant children at the elementary schools. Elementary school services are the same for all children with the exception of some supplemental clothing and medical/health services that are provided to migrant children. However, starting at the middle school level, Donna's Migrant Education Program coordinator believes it is key to maintain a special focus on the intent and purposes of the Migrant Education Program.

Donna ISD's educational interventions targeted to the needs of migrant students include: 1) Jostens Integrated Learning System, 2) Help One Student Succeed (HOSTS), 3) Michael Eaton Reading-Writing Program, 4) SRA reading kits, 5) Content Mastery (in-school tutorial), 6) Sharon Wells diagnostic-prescriptive instruction, 7) Reading Recovery, 8) Migrant Tutorial, 9) Project SMART, 10) American Preparatory Institute for grades 10-12, 11) Extended Year (Summer) Program, 12) Credit Retrieval System, 13) Instructional aides in classrooms, 14) Essential Learning Systems computer reading program, and 15) six parent involvement initiatives.

Intervention with secondary-level youth begins with the three Migrant Education Specialists that work in the district. The specialists are certified counselors who make sure that credits are accrued, grades are consolidated, and migrant students enroll in a catch-up or accelerated tutorial program when needed.

In the Spring, the specialists make a series of announcements to any students who are planning to withdraw early. These announcements ask the students to give the school two weeks notice of their forthcoming withdrawal (informing both the regular classroom teachers and the migrant education office). Announcements are not only made via the school intercom but through pre-programmed telephone messages to the migrant students' homes. Upon receiving notice from a student, a withdrawal record with course information is prepared and given to the students who plan to enroll in an out-of-state school. In addition, once the receiving school district gets the withdrawal information in hand, Donna ISD counselors answer calls from receiving school counselors questioning what will be needed for partial credit or course credit for the Spring semester.

Approximately one-third of the migrant student population that withdraws early makes arrangements to "work ahead" via a University of Texas correspondence course (or via a program prepared by the regular classroom teacher) that prepares them to complete their coursework through the credit-by-exam option. This option enables students to take a test; if the student passes the test, full credit for a course or courses is granted before they depart. The other students are informed that they can take a PASS course, apply for a University of Texas correspondence course, or follow up with the PASS program offered at the receiving site.

Students often use the PASS program, as it is used more frequently in the school districts the students move to in other states. The PASS program is slightly more difficult for district officials in Donna to manage because they must copy all of the materials for the participating students. In comparison, the University of Texas correspondence course program sends all needed materials to the school at no cost to the school or students.

When students return in the Fall, they are processed through the migrant education office. Students are asked if they attended a northern school while they were away. If the student did attend school, s/he is asked for information on grades received or credits accrued to be submitted to the registrar and his or her respective counselor. Student information from an enrollment in Michigan is returned by hand, fax, or mail. Students who accumulated sufficient course credits (or worked ahead) are enrolled and given a new course schedule. Students who did not enroll in school, did not accumulate all course credits needed, and/or who missed too much of the first six-week period, are enrolled in the basic program and assigned to the migrant tutorial program.

Most secondary-level migrant students are placed in the migrant tutorial that has been in operation for ten years. Migrant students attend the migrant tutorial program during independent study periods and can use the tutorial to catch up in the Fall or to accelerate instruction in the Spring. The tutorial program is staffed by three full-time teachers and one part-time certified teacher. Currently, there is growing pressure to add more teachers, given the number of migrant students who are enrolled in the tutorial program.

The Tutorial Program. The tutorial program in Donna is housed in a portable building that is connected to the high school via a short walkway. Inside, the portable unit consists of two rooms, approximately 30 feet by 30 feet each. The passageway between the two rooms is open. Throughout the two rooms are six clusters of tables, with 40 students filling almost every seat. Attendance each period ranges from 35 to 50 students. While the rooms are not quiet, and

perhaps not ideal for studying, there is not a disruptive level of noise. The walls are adorned with posters, materials, and school rules usually seen in high school classrooms.

It is a very busy place. About one third of the students work quietly and independently. Another third observe the researchers who are visiting their classrooms. The remainder are working with the teachers in small groups or in one-to-one conversations. The students represent four grade levels and can work in four subject areas: English, History, Mathematics, and Science. The classes are conducted by four teachers (three work on a full-time basis and one teacher works part-time). The lead teacher, who carries the largest caseload (English I, II, III, IV, U.S. History, World Geography, Economics, and World History), came out of retirement to work in the migrant tutorial. She is joined by three colleagues. One handles Algebra I and II, Geometry, and Project SMART Geometry; another teaches Algebra I; and a third, another retired teacher, handles Biology I & II, Chemistry I, Physical Science, and Anatomy & Physiology.

The students attend the tutorial for 90 minutes per day, two to three times per week. Some students will come to the tutorial during their lunch break to accelerate their studies. Students often work with instructional "packets" (designed by the tutorial teacher or a classroom teacher) that include photocopied content and worksheets. In some cases, the teachers have highlighted the "important" sections in textbooks for the students which are a highly valued resource by the students. In fact, the highlighted textbooks disappear occasionally from the room for unauthorized use. Other students use the tutorial to work on PASS programs materials or University of Texas correspondence courses.

If a student is completing work from the prior year and passes the exit test, the tutorial teachers sends that student's grades directly to the registrar. If a student is catching up on work missed during the current year, the grades are sent to the regular classroom teacher, who makes the final decision about course grades. An important program component is good communication with the classroom teacher on two issues. First, the regular classroom teachers need to agree on the instructional priorities. Second, the regular classroom teachers need to be assured that the instructional packets are of sufficient academic rigor.

In the 1996/97 school year, over 1,400 instructional packets (each equaling six weeks work) were completed by the students. For students who have fallen severely behind (beyond one semester), they also receive preparation for the TAAS in reading, writing, and basic math skills through the INVEST Learning program or JOSTENS program (both are computer-based instruction programs).

As note earlier, Donna ISD offers over 15 different schoolwide educational interventions for students who are at risk of failing. Several of those interventions are of particular importance to migrant students and are briefly described below.

TAAS Tutoring. The TAAS Migrant tutoring program serves migrant students in grades 10-12 who have not passed the Exit-Level TAAS. Students are scheduled for the respective subject area that is needed and are served by a certified teacher. This staff member is trained in test taking strategies, accelerated instruction and cooperative learning. Successful implementation of this program is based on the mastery level in the subject areas of need and the percentage of students passing the Exit Level TAAS Test.

Project SMART (Summer Migrants Access Resources Through Technology). Project SMART is a migrant-funded summer program that is designated for migrant students who do not migrate during the summer months. This program serves students in grades PreK-12 and incorporates language acquisition, reading, science, mathematics, and social studies. The instructional delivery of this program utilizes televised instruction via public broadcasting stations and cable operators. Project SMART instructional staff assist the regular summer school teacher with SMART lessons via television monitors. Staff development for project staff is incorporated with the training provided for regular summer staff program. Effective program implementation is measured by results from TAAS, Iowa Test of Basic Skills, passing rate from one grade level to the next, and the graduation rate of migrant students.

Credit Retrieval System. The Credit Retrieval System provides students an intensive individualized program to make up the essential elements necessary to pass a subject. Students who have failed a core subject during a six-week reporting period are eligible for this type of program. Teachers are responsible for filling out a prescription form and an instructional packet for each student failing a six-week period. The instructional time is contingent on the quantity of essential elements that need to be mastered. Students will not earn a grade above 74. In the "accelerated" component of this program, students are provided with a self-paced study program that enables them with an opportunity to test out of a core area class. The students will have the option of testing without study guidance. The Credit Retrieval System program is considered successful if each participating student earns credit in the class or classes enrolled.

Discussion

The main problem for home-based Texas and Florida migrant youth who are enrolled in the secondary grades is accruing credits necessary for graduation. In both Texas and Florida, students who migrate often do not complete their course of study in either their home-base state or the receiving state. Over time, the consequences of incomplete coursework are low mastery of subject matter, poor grades, and unsatisfactory course completion. These variables are well-documented as negative influences on attendance and enrollment in school, credit accrual, grade promotion, and high school graduation.

For that reason, the primary educational objectives for migrant educators in Donna, Van Buren, and Manatee County are: 1) to provide supplemental educational opportunities for students to catch up on instruction missed due to a migrant move, 2) to properly select and place students in the appropriate instructional programs and/or courses of study needed, and 3) to ensure the on-going accrual of secondary credits needed for graduation.

Migrant educators in each district recognize the value and need for cooperation, coordination, and collaboration if they are to attain maximal effectiveness in educating migrant students. Receiving schools like the summer program in Van Buren need information to properly design, select, and place students in appropriate instructional programs and/or courses of study so that they can achieve instructional congruence in what is being taught as defined by Allington and Johnston (1986). The originating schools in Donna and Manatee need Van Buren to provide, follow up, or support appropriate instruction to keep the students on track with their studies so they do not fall so far behind that they give up. They also need Van Buren to send records that can be used to document course credits when the students return home. Finally, the receiving schools in Michigan need to rely on staff in Donna and Manatee who are motivated and able to ensure that students enroll in a catch-up or an accelerated tutorial program if needed, grades are consolidated, and appropriate credits are accrued.

At the heart of these procedures is communication among the staff of each program, school, and district. The development of personal relationships—more than formal systems or advanced technology—seems to characterize how these procedures are carried out. The migrant counselors, teachers, and resource specialists in all three districts talk about the importance of meeting face-to-face with each other to establish working relationships. They see themselves as a "human network" that works to solve barriers migrant children face. For the most part, secondary-level students are the priority for their energies and attention. Although Texas, Florida, and Michigan use computers to store some student information, the migrant educators uses fairly basic technologies by current standards (telephone, fax, mail, in-person meetings,

hand-carried delivery by students/parents) to transfer information. Since neither Michigan and Florida are part of the New Generation System (NGS) consortium, the prospects for transfer of information by electronic means appear low at the current time.

The interventions the "network" leverages to enhance educational continuity include a mix of home-grown and state-supported innovations. Migrant student-specific instructional programs (i.e., in-school tutorials in Texas and the summer evening programs in Michigan) are key delivery systems. Within these programs, a number of instructional interventions are often available for students to continue their academic progress (e.g., instruction packets, PASS, UT correspondence courses, Project SMART, TAAS prep, computer-assisted instruction labs, credit-by-exam). In several cases (i.e., PASS and University of Texas correspondence courses), the instructional interventions may be completed as independent studies and do not require attendance in a tutorial or summer program but do require some forms of institutional support (e.g., grading and awarding of credits).

Keeping the network alive is no small feat. It requires resources to build and maintain relationships, to improve information transfer, and to develop, update, and evaluate the instructional interventions. Special resources—like the Texas Migrant Interstate Program—are also needed to fill in gaps when the local school counselors can not be reached. Finally, strong leadership is necessary to marshal and allocate resources.

In cases where dedicated professionals do work together, the positive impact of coordination efforts on the continuity of instruction for individual students can be striking. But this approach must address a number of significant challenges if the impact on student achievement is to be as great as desired by educators in Donna, Van Buren, and Manatee County. Continuous challenges include providing:

- Time and resources for staff to pursue and maintain a "relentless" approach to meeting the special needs of secondary migrant students;
- Reasonable caseloads for migrant counselors in the regular school year;
- More efficient information-processing and management capabilities that eliminate delays in transferring and summarizing migrant student information (including alternative sources of data when originating schools are closed during the summer months);

- Resources to design and update the instructional programs (to meet changing course requirements and state standards and to effectively accommodate student needs for particular courses that are not available in the district in which they temporarily enroll);

- Resources to guide continuous improvement of the interstate efforts via on-going and objective evaluations of both the process and results;

- A means to guarantee students that partial or full credit for the work they have done will be granted, or else the economic pressures for students to work versus study will prove difficult to surmount.

It is interesting to note that the suggestions cited in Volume I by Melaville and Black (1991) as critical to successful collaboration are evident in the Donna-Van Buren-Manatee County case. As partners, district staff have spent time learning how their counterparts operate and have built respect for each other's needs. They engaged in periodic communications to establish rapport with key players, to conduct joint planning, and to keep all other staff well informed. Both formal and informal communication structures were used and their efforts were supported by higher levels of administration. The sites share a common objective: to help secondary migrant students accrue the credits needed to graduate from their home-base school. Although tested at times, the credibility of the districts as partners has been sustained by commitment to their promises. By enacting these processes, the staff in the Donna-Van Buren-Manatee County case have demonstrated how personal relationships and communication can play an important role in promoting institutional understanding of shared responsibilities for delivering appropriately coordinated educational services to migrant children.

In this case study, educators did report that most of the problems with educational continuity concern secondary-level students. However, they also stated that summer migrant education programs, especially in receiving states, make an important contribution to the academic progress of pre-school and elementary-level migrant students as well. In fact, the summer programs may be more important now than they were at an earlier time.

Currently, as part of their education reforms, many school districts in Texas, Florida, and elsewhere are funding extended school-year services to help all children learn what they failed to master during the regular school year. Migrant children lose the opportunity to participate in and benefit from these local summer programs when they migrate with their families in search of temporary or seasonal work. If the migrant children move to a place where there is no summer program, they will not only stay behind, but will fall farther behind their non-migrant peers who

are enrolled in the Summer programs offered in the home school district. Thus, ensuring access to Summer program services for pre-school and elementary-level migrant children is a vital role that the Migrant Education Program now plays.

Yuma School District #1, Yuma, Arizona
and
Alisal School District, Salinas, California

The Yuma-Alisal case study differs from the previous cases in three ways. First, it does not involve migrant students sent from Texas; rather, it involves reciprocal exchanges of students between two districts: Alisal in Salinas, California and Yuma School District #1 in Arizona. Second, curriculum alignment, not credit accrual, is the primary issue in this case study because the two districts share only elementary-level students. Third, it offers the most straightforward example of direct collaboration between two districts with identifiable shared students and the sharing of resources toward the resolution of mutually identified problems.

The Partners

Yuma School District #1 (SD1), Yuma, Arizona

Yuma sits on the Colorado River and borders California, only a few miles from the Mexican border. Migrants in the Yuma area work with lettuce, cauliflower, broccoli, onions, and citrus. Except for citrus, they are the same kinds of crops as in the Salinas area. Migrants engage in all aspects of agricultural work, from planting to tending crops to harvesting to processing. The agricultural area centers around the Salton Sea.

Major employers are D'Arrigio, TNA, Dole, Nunes, Norton, Fresh Choice, and New Star. TNA employs large numbers of migrants in both the Salinas and Yuma areas. Those families are more likely to know that work is waiting for them, and in what vicinity. They lose a little less school time in the transition between sites than do other families.

Most migrant families have a base in either Yuma or Salinas and some own their own homes. About 30 families who travel between Salinas-Yuma also work in Mexico part of the year. Since parents are trying to get their children to attend the same school for the entire school year, the children may have a permanent home with relatives, even if the parents do not.

Yuma has one high school district, grades 9-12, and four K-8 districts that feed into it; Yuma SD1 is one of the four K-8 districts. The Yuma area represents at least half of all migrant students in the state of Arizona. Approximately 1200-1400 migrant-qualified students are enrolled in Yuma SD1. Increasingly, the students stay throughout the school year, but even

within a school year, there is substantial movement of migrant students among schools within the district. About half actually move during the year, and at least half of those who move go to the Salinas valley area. Students from Salinas start coming in mid-October through the end of November. They return to Salinas at Spring break. The majority lose 3-4 days of school. Parents try to get their children into school right away, in part so they can start working; however, they need a street address in order to enroll in school.

Yuma SD1 dedicates about a third of its migrant funds to pre-school programming. Migrant pre-school is conducted on an outreach basis. Twenty-two migrant instructional aides are based in schools in the morning and conduct outreach in the afternoons. They identify locations where groups of parents and children gather, whether in homes or common rooms in apartment complexes. They provide families with packets of crayons, paper, glue and other items and show them how to work with children on early childhood and school preparation skills.

At the elementary level, the instructional aides work within regular classrooms. Ten of the 17 elementary schools are Title I schoolwide programs, six are targeted assistance sites, and one does not have a Title I program. In any of these settings, migrant assistants are mandated to give priority service to migrant students.

Each of the four junior high schools has a migrant aide who works with migrant students under the direction of classroom teachers, mostly in English as a second language (ESL). The nature of English as a second language services in Yuma SD1 varies from school to school. It may be explicit ESL instruction or sheltered-content English classes. Only two schools have bilingual services; one of them has begun a two-way bilingual education program, and in the other, the use of Spanish is not very structured. The district encourages teachers to obtain the state ESL endorsement, using a variety of sources. Most schools have one or two ESL-endorsed teachers per grade level.

For four years, the district also has employed a junior high school advisor for migrant students who reviews student records to identify students who need help, so that they may receive additional assistance to prepare them for high school. The district sponsors summer school, primarily for Title I students. The summer school charges tuition, but the Migrant Education Program provides tuition assistance for migrant students to participate in the program.

Yuma has made local accommodations on behalf of educational continuity for migrant students, as seen in the decision of Pecan Grove Elementary School not to move to a year-round schedule because they realized migrant students from Alisal would lose considerable instructional time due to the mismatch in breaks. A year-round calendar would mean school was not in session when many students arrived.

Alisal School District, Salinas, California

Salinas, California has a 7-12 secondary district, two K-6 districts (including Alisal), and two K-8 districts. Alisal Union School District encompasses the eastern side of the city of Salinas in Monterey County, California. A majority of the district's students are limited in English proficiency, and 40 percent qualify for Migrant Education. The district serves grades K-6; when students move into secondary school, they also move into a different school district. Other districts within Salinas that enroll migrant students, including those who move between Salinas and Yuma, Arizona have been invited to participate in planning between Alisal and Yuma but have done so only sporadically.

The Salinas area is known for its agriculture. It was the setting of many of John Steinbeck's works, including *The Grapes of Wrath*, which described the movement of farm workers from Oklahoma to California during the years of the Depression. After World War II, Hispanic workers, primarily from Mexico, began to dominate farm labor. The major crops in and around Salinas include lettuce, cabbage, artichokes, cauliflower, strawberries, onions, asparagus, and Brussels sprouts. Migrant workers are involved in every aspect of the crops, from planting to harvesting to processing and packaging. The agricultural work season begins in early Spring and lasts into the Fall. Families that migrate to Yuma leave in the largest numbers around Thanksgiving and begin to return in February to look for work and housing, if necessary.

A Fall 1997 count revealed 331 Alisal students who travel between Salinas and Yuma. These students do not differ from other local migrant students in terms of their socioeconomic status, language proficiency, ethnicity, or other significant characteristics. About half are based in Salinas; the other half are based in Yuma.

Alisal USD offers a variety of instructional services for migrant students, designed to overcome the educational problems faced by migrant students in general. Migrant Education in Alisal USD supports after-school tutoring, Saturday school as well as summer and intersession school.

The migrant program also assembles Continuous Learning Packets that give students additional practice in grade-level skills. These packets are provided for intersessions and Summer breaks for students not attending formal migrant programs during those times. Parents and students are oriented to their use, and parents sign off to verify the students have done the work. In addition, as packets are returned, migrant program staff reviews the work to make sure it is correct, and if so, may issue another packet.

Recently, educators decided to use summer school to promote faster English acquisition. Therefore, at the time of the site visit, most instruction was in English, using sheltered methods. Of 16 summer school teachers, four were paid by "core" funds (basic education funds) and 12 from migrant funds. Although all the Title I sites operate as schoolwides, and students are placed in classes according to their language proficiency, students in summer school and other supplemental services are served and grouped by funding source. In other words, the teachers paid from Migrant Education funds served migrant students exclusively. This follows a state requirement, not a locally instituted policy.

Problems Facing Migrant Students

In the early 1990s, teachers in Yuma would comment that their migrant students "left doing well and came back falling behind," referring to both their English proficiency levels and academic achievement. The decline was most apparent in English. Teachers in Salinas were saying the same thing about students who left for Yuma. In both cases, the perceptions were based on observations, not on collected language test scores or academic data. These observations led to dialogue between the districts that in turn uncovered several sources of educational disruption.

Students who migrate between Alisal School District in Salinas, California and Yuma, Arizona suffer educational disruption in a number of ways. First, most of the students are Spanish dominant, and they receive a bilingual program in Salinas but English-only instruction in Yuma. Second, many families do not obtain important documents such as withdrawal slips and other academic information before leaving a district which causes delayed entry into their new school. Therefore, students arrive at each district without important information. Third, instructional time is lost during transit and while parents look for housing and work. The issue of secondary school credit accrual is not relevant in this case study because the two districts share only elementary students.

The primary difference between Yuma SD1 and Alisal USD lies in its service to LEP students. Yuma provides no bilingual services, in part because of the lack of bilingual personnel. Previously, LEP students were placed strictly according to grade level and language assessment according to the locally adopted measure, the IDEA Proficiency Test (IPT). Limited English Proficient migrant students are served for the most part in mainstream classes receiving whatever language assistance the school provides, usually in the form of ESL. Alisal, as previously stated, provides a comprehensive bilingual program with substantial instruction in Spanish, but with a separate set of classes taught through sheltered English methods for families who decline bilingual services. The transition between all-English and bilingual instruction causes major disruption for students. Little if any academic information was available to help teachers and inform instruction at the classroom level in both districts.

Teachers in both districts are hampered by the lack of information about newly arrived migrant students, particularly their English proficiency and current academic levels. Yuma uses the IDEA Proficiency Test (IPT). Alisal USD uses the Bilingual Syntax Measure (BSM) as its language proficiency assessment upon entry. Annually after that, language development is monitored through a locally developed instrument called the ADEPT—Alisal Development of English Proficiency Test.

While most families know that they should ask for withdrawal slips and health records before leaving a district, one secretary said that fewer than 50 percent of families inform the school of their imminent departure.

There are several difficulties in facilitating records transfer, whether between Yuma and Alisal USD or any other sites. The demise of MSRTS has meant a loss of health and academic records transfer capabilities. The difficulties are compounded by the need to integrate migrant records with the new state STAR system, a comprehensive database. The migrant portion is referred to as COE/STAR, including information on the Certificate of Eligibility.

Local districts in California, such as Alisal USD, do not have migrant-purchased computers; therefore, the computerized database for COE information can be found only at the county office. District personnel must obtain COE information from that office by telephone or fax. State rules prohibit purchase of computers with Migrant Education funds by local districts; they are reserved for the county programs funded directly by the state. For that reason, students who migrate between Salinas and Yuma are identified through a COE hand count.

As noted earlier, Yuma has one high school district, 9-12, and four K-8 districts that feed into it. Salinas has a 7-12 secondary district, two K-6 districts (including Alisal), and two K-8 districts. The mismatch in the grade spans causes further difficulties in communicating about students in grades 7-8.

Although the problem of lost instructional time was not specifically addressed by the districts, both agreed that about three or four days are lost during the move and search for work and housing. Workers travel between Yuma and Salinas with no particular guarantee of employment or pre-arranged housing. Often they look for work and procure housing before enrolling the children in school because the children cannot be enrolled without a street address. Therefore, several days of school time might be lost before a family secures a street address qualifying a student to register in a specific school.

Promising Practices

The Yuma-Alisal case focuses on mutually identified needs and solutions; therefore, much of the information gained from Yuma duplicates the information from Alisal. However, the two districts operate quite differently, and thus the local accommodations to migrant students are unique.

Promising Practices in Yuma School District #1

When the problems of migrant students were being discussed locally in the early 1990s, the Director of Federal Projects in Yuma asked the migrant records clerks to identify the schools in Salinas the students had attended. She then contacted the head of migrant programs in Alisal School District and requested a meeting in 1991 to discuss mutual concerns about shared migrant students.

As a result of this meeting, personnel from both districts agreed that these were "shared students, not belonging to one or the other." That attitude led to agreement to minimize differences in services, most clearly in the type of language assistance programs provided to students. Subsequent meetings identified the kinds of information that teachers needed in order to begin serving newly arrived students appropriately as soon as possible. Use of the internet and e-mail to exchange data seemed a real possibility for both school districts. Though direct electronic communication between teacher-to-teacher or site-to-site was preferable because of

the lag inherent in sending information through a central data repository such as California's regional offices.

The greatest coordination effort of these trading partners was the creation of a migrant student identification card by Yuma School District bearing such information as each state's migrant student ID number, the student's name, parents' names, date of birth, prior school, and teacher's e-mail address. With this information, the receiving school can contact the sending school and/or teacher to determine correct placement for grade and language of instruction. The information can also be used to place students in other appropriate services if so indicated. Teachers can contact each other for information for appropriate classroom instruction and detailed information on a student's academic performance. E-mail also can be used for students to maintain contact with former teachers and classmates.

An electronic template was devised by Yuma and contains the kinds of information agreed to by teachers and administrators from both districts. Two teachers from Yuma and Alisal piloted the use of the student identification card during 1997-98. Teachers in Yuma and Alisal began exchanging information about students. Schools have some flexibility about who and when the electronic template is filled out. In some schools the counselors take the lead, while in other schools teachers do.

The ID card was slated to be issued to parents at a meeting in December, 1998. Not many parents come to meetings, so letters about this new card were prepared in English and Spanish. In some cases, home-school liaison workers delivered the ID card in person. In other cases, they were mailed.

E-mail communication between teachers promises applications in instruction as well as information exchange. Migrant students from Yuma are assigned journals to work on while migrating and family projects such as describing new locales and their experiences. These assignments can be used to obtain better grades in some classes, including classes at the receiving site. Students who write journals on the computer can send them via the Internet to teachers in Salinas. Many California schools do not have computers, so the work is sent to teachers' home e-mail addresses when teachers so agree. "E-mail journals" can start electronic communication with other teachers.

Anticipated outcomes of the electronic information exchange include easier student transition with appropriate placement; improved information for teachers about newly arriving

migrant students; and instructional continuity because students will be able to communicate with the other site. The e-mail transfer will have a direct impact on placement in language assistance programs. Teachers will know whether LEP Alisal students arriving in Yuma should be placed in ESL sites or at Pecan Grove, which has inaugurated a two-way bilingual program. And students will be able to scan their work and send it to readers at the other site. These are tangible examples of ways to overcome the academic and social disengagement that Rumberger and Larson (1998) said results in mobile students' dropping out.

The e-mail communication has several possibilities. For example, the migrant counselor at Pecan Grove used the term "attachment disorder" in describing an emotional state migrant students suffer when they leave friends and familiar surroundings behind. That term strongly echoes the "social disengagement" identified by Rumberger and Larson. She sees the potential of an "electronic pen-pal" arrangement through the technology.

At 9th grade, e-mail communication between the districts would offer a greater opportunity of credit continuity. It would help erase ambiguity about content of cognate courses. The system has also major implications for academic counseling.

Obstacles to Implementation. At intake, staff largely rely on students or their parents to provide the information that they came from Alisal (or any other given district.) Parents have gotten better at notifying schools that they are leaving, but it is continues to be a problem.

There are some legal issues that affect the information that can be sent. At the time this study concluded, a decision still needed to be made about the level at which the actual template information will be shared: school or teacher. The school level would affect placements, such as grade level and language program, and the teacher level would be more detailed and encompass decisions about instruction.

The problem with the e-mail information exchange was related to hardware: Alisal does not have the same degree of hardware capabilities as Yuma. Every teacher in Yuma is on line; this is not the case in Alisal.

Promising Practices in Alisal USD

To provide instructional continuity to students, migrant staff at Alisal USD are careful to enroll students from Yuma SD#1 into the sheltered English strand of LEP instruction as it

closely reflects Yuma's curriculum. However, newly assigned resource teachers may not be aware of this practice, and some Yuma students may be misplaced into bilingual classes.

Yuma is moving toward more sheltered English instruction as opposed to mainstream with some ESL support; this will bring the two districts' methods of serving LEP migrant students into closer alignment. Meetings between staff of the two districts have determined equivalencies among the Bilingual Syntax Measure, ADEPT and IDEA Language Proficiency Test to allow language proficiency information to be mutually understood and communicated.

Obstacles to Coordination. More formal, complete, and timely exchange of migrant student information is hampered by the lack of direct access to relevant technology. Migrant student information for Alisal USD is housed at the county office and cannot be accessed directly by Alisal's migrant staff; it must be requested by telephone or fax. The lack of a computerized migrant student database in Alisal makes it difficult to retrieve student information that could be used to assess effectiveness, such as language proficiency and/or academic achievement scores. This kind of information must be retrieved by looking through student folders by hand. Essential student information is kept on the main district database, but staff reported difficulties getting access to the data. Therefore, the migrant program personnel perceive a need for a separate migrant student database. However, the Alisal USD does not have the technological requirements, such as computers, nor does it have direct access to the COE information kept at the county office. Individual teachers do have computers, so the teacher-to-teacher e-mail exchange is feasible, and was planned for piloting during the 1998-99 school year. The county office has agreed to provide the district one IBM computer; however, one per building would be needed to allow the e-mail system to relay information or information requests from the school to the district to the county.

Discussion

The ID card solution was devised in the series of meetings held between the districts since 1992. As described above, the meetings identified different practices in language assessment and language support programs. They led to agreement on the kinds of information teachers needed to facilitate students' entry into the new school and classroom. When the student identification card is fully implemented it will help avoid duplication of a myriad of services, such as dental screening and testing. Staff at the receiving school will know what kinds of support services the student has received, such as extended day tutoring. Knowing levels of academic performance will also tell the receiving staff how to gear services.

Interstate coordination between Yuma and Alisal has come about because of the perseverance of individuals at each end. Both districts have modified local instructional or scheduling practices to enhance continuity and achieve a degree of congruence. They have identified needed student information and set in process a means of sharing that information electronically.

The migrant students shared by Yuma and Alisal face a set of problems commonly encountered by migrant students everywhere:

- Instructional time lost during the move and search for housing and employment;
- Lack of information to help inform instruction at the classroom level;
- Dissimilarities between the language assistance programs for LEP migrant students.

In Yuma, solutions to the first problem of lost instructional time consist primarily of tutorial assistance by migrant aides in regular classrooms and use of Migrant Education funds to help migrant students attend summer school. Alisal has devised several local solutions to the problem of lost instructional time, such as intersession study packets, summer school, after-school tutorials and Saturday classes.

Solutions to the problems of lack of information and dissimilarities between language assistance programs required strong coordination between Yuma SD1 and Alisal School District. Coordination between the districts has been initiated and sustained primarily at the level of the special programs offices, including Migrant Education. At times it has included other administrators, specialists, and some teachers. To date, coordination of services for migrant students has occurred in the form of unilateral modification of local instructional practices. Specifically, Alisal USD has expanded its English instructional component and placed students who spend part of the school year in Yuma in its sheltered English strand. Yuma has endeavored to strengthen its services to LEP students. It does not have the resources to offer bilingual instruction, but it is moving toward a model similar to Alisal USD's sheltered English program.

The steps taken in Yuma and Alisal to create a common body of shared student information reflect effort expended toward coordination. Without giving up their local language

assessment practices, both districts have coordinated their practices to achieve mutual understanding of student test scores to guide their placement in language assistance programs. The student ID card and e-mail system may lead to greater mutual understanding of student needs and thus to more consistent instruction. In this way, these efforts may promote greater curricular and methodological congruence, thereby lessening educational discontinuity for migrant students.

The Yuma-Alisal case may offer special lessons to trading partners who share substantial numbers of identifiable, individual students who regularly travel back and forth between two districts. It shows how direct communication between two districts can lead to the identification and resolution of mutual problems with sustained communication, the commitment of some local resources, and the willingness to change local practices. The fact that these two districts share only elementary students simplified the situation. The list of needed information did not include the complexities of graduation requirements and partial credits that posed such challenges in the other cases. Nevertheless, timely information access and understanding of each other's instructional practices were critical to lessening the effects of educational discontinuity.

The principal coordination strategy, the e-mail information exchange, holds promise for applications at the district, school, and classroom level. At the district level, the consistent information the ID cards and e-mail templates provide may allow better planning because it can focus on large numbers of students from a single sender. This case showed how identifying large numbers of shared students resulted in modified curriculum practices in both districts. At the school level, the information allows more timely, accurate classroom and program placement. At the teacher level, the information allows within-class placement and instruction that meets individual needs. As the discussion noted, the system may allow students to build more stable connections and overcome feelings of isolation by allowing them to remain in contact with teachers and friends. All of these potential benefits accrued from the identification of a shared problem and the commitment of time and personal attention toward its resolution.

COORDINATING MECHANISMS: "THE REST OF THE STORY"

The trading partners study found several coordinating mechanisms (which included both special resources and educational innovations) that had been put in place on the part of state offices of migrant education or in collaborative consortia among state directors and other interested persons. These mechanisms repeatedly appeared as important elements for coordination and continuity of migrant educational services. They provided a type of metaphorical glue or cement that allowed local projects to align local programs with the students' home bases, particularly in the case of districts that received students from Texas. Also, they provided the means for districts to gain access to the information needed to make appropriate placements, calculate partial credits, and ensure that local coursework was posted to the students' records in their schools of origin.

For these reasons, the mechanisms merit description in this report. Indeed, without these descriptions, the preceding case studies are not complete. They provide further information on what migrant educators have done to collaborate and, through their collaborative efforts, devise creative solutions to the problems migrant students face. The mechanisms are presented and discussed under three categories in which they cluster naturally:

1. Technical Assistance and Support
2. Instructional Technologies
3. Information Technologies

Technical Assistance and Support

Texas Migrant Interstate Project (TMIP)

The Texas Migrant Interstate Project (TMIP) was established in 1980 to address the needs of both "interstate" and "intrastate" migrant students because the State Director of the Texas Migrant Education Program recognized that Texas was sending students to 40 different states (the current number is 44 states), and would need to work actively with the receiving states to improve the continuity of education for migrant students.

From its inception, TMIP was intended to increase the graduation rate of migrant students by promoting coordination/cooperation of migrant education programs that provide services to migrant students. The Texas Migrant Interstate Program focuses most of its efforts on secondary-level credit accrual; in particular, it provides follow-up on calls that require interventions to ensure students are granted credit for work done in several states.

The Texas Migrant Interstate Program is funded by the Texas Education Agency (TEA). The Pharr-San Juan-Alamo School District serves as the Program's fiscal agent. The Texas Migrant Interstate Program's office is in Pharr, Texas which is located within Region 1 in the lower Rio Grande Valley, where initially 75 percent (currently 65 percent) of the migrants in Texas lived. Up until a few years ago, Pharr had the largest number of migrant students in the nation and even now enrolls over 5,000. Currently, nearby Weslaco and La Joya enroll larger numbers of migrants.

The Texas Migrant Interstate Program began its activities with information dissemination and training about the Migrant Education Program in general and the national Migrant Student Record Transfer System (MSRTS). In 1982, TMIP introduced the annual Secondary Credit Accrual Workshop to provide educators with detailed instruction on how to facilitate credit accrual through a variety of activities involving information exchange, matching course content, and the calculation of partial credits.

The annual workshop, now in its 17th year, is convened for one full day of presentations and meetings, followed by several days of fact-finding visits to schools in the Rio Grande. During the workshop, concurrent sessions provide updated information on Texas's secondary education requirements, on alternative opportunities for students to gain course credits, and on new uses of technology in information transfer and instruction. For example, Texas is moving from the "essential elements" to the new "essential knowledge and skills" (TEKS). The Texas Migrant Interstate Program's Director noted that "if the curriculum changes a little bit in Texas, then the upstream states must adjust their programs if the students are going to get credit."

Another very important feature of the annual workshop are the "verification" meetings. In these meetings, out-of-state participants meet face-to-face with local school district staff to verify credits immediately and address unresolved difficulties in credit accrual for individual students. These meetings not only help to resolve the credit accrual problems, but perhaps equally important, provide an opportunity to create and sustain the personal relationships necessary to solve problems effectively and provide adequate follow-through. In the days

following the workshop, TMIP also schedules several trips for out-of-state participants to schools in the valley. During these field trips, out-of-state participants can see and hear first-hand local school faculty discuss their curricula and programs. The participants can also meet with individual schools or districts as necessary.

Over the last ten years, a core group of participants have come regularly to the workshop to sustain their connections. But the workshop also supports new personnel who need to make those connections and find out what they need to do to satisfy the requirements of a Texas school. This is particularly pertinent for new staff, who could expend their own time and students' time on services that will not accrue course credits.

An example of the value of this workshop occurred in 1998, a counselor from Maine came to meet with people at a school in Brownsville, Texas because the migrant students (who were now coming to Maine in the summer) were not enrolling in the Summer program. The students did not enroll because the Brownsville school would not accept the work they had done in the previous Summer program for credit. The counselor from Maine met with the counselor at the Brownsville school and found out what they needed to do in order to have the students get credit if they participated in the Summer program.

Twenty states participated in the 1998 workshop, and there are 17 states that consistently attend. Participants include local administrators, counselors, and people responsible for awarding credit. In the early years, state Directors of Migrant Education Programs came to the workshop, but TMIP found out that it was critical to bring in the people who actually worked with the instructional programming and record systems. Some states now send six or seven people because of the different sites they operate within the state and the opportunity to talk with the appropriate administrators, principals, and counselors invited from Texas. In addition, TMIP invites registrars, who with local counselors in each school district to award credits to migrant students. Last year, 17 of the 20 regions in Texas sent a representative to the workshop and 50 school districts also sent a representative.

When TMIP staff talk with prospective participants about the value of attending the annual Secondary Credit Accrual Workshop, they emphasize the value of personal relationships:

> It is a chance to sit across the table, face-to-face, with the people you are going to be dealing with throughout the year. It's a little expensive, but once you get to know each other, it works much, much better. You get to know each other by

name and you are able to pick up the phone and talk when any issue comes up. (Director, TMIP)

All three of the professional staff at TMIP (a Director and two program specialists) are certified counselors in Texas and remain up-to-date on the requirements of every graduation plan available in Texas. They can provide current, expert advice on the proper courses of action with respect to credit accrual, grade promotion, and graduation.

The most important service provided by TMIP is the "follow-up" by staff whenever an educator or student calls in for information or help. As one staffer said:

> During the course of any day, people contact TMIP for assistance. Each call is recorded in on a contact log. As counselors, we then call the person and assist them with their request or problem and document our work on a response log. If a school district up north wants student information, they call us. We get them together with the person they need to talk with in the Texas school district. Once they start to have the conversation, we can step out and let them work it out. It is always better to let them deal with each other directly than through a third person. (TMIP Program Specialist)

Locating a student's record, finding the right person to talk to, or being able to make an appropriate referral are a large part of the TMIP staff's work. In making appropriate referrals, TMIP staff rely on the NGS, the Texas Migrant Education Program Directory, the National Migrant Education Program Summer School Directory, a directory listing all schools in the state of Texas, a Directory of Services for Migrant and Seasonal Farm Workers, and a listing of all the universities in Texas and their entrance requirements and scholarship information.

Increasingly NGS is becoming the key tool. States who participate with NGS can get usually the information they need almost instantly, on their own. However, if a state is not a NGS member, TMIP queries NGS for them to obtain the required student data. If for some reason the information is not on NGS, TMIP then calls the schools directly to get the information requested by the state.

Although NGS has demonstrated how it can link schools to current information, at the time of this study only 12 of the 44 states that share students with Texas had adopted the NGS. To help other school and district personnel make direct connections on their own, TMIP

disseminates the "program directory" with the names of contact persons, addresses, and telephone and fax numbers of schools in Texas that are serving migrant children.

In cases where local policies present a barrier to credit accrual, the credit accrual work of TMIP has been facilitated by the appointment of a Migrant Services Coordinator. The role of the Migrant Services Coordinator is to advocate for migrant children, coordinate migrant projects at the district level, and coordinate with other migrant staff and projects (such as TMIP). Whenever TMIP staff (on behalf of an upstream state or another district) have a problem with a local school policy, they can call on the Coordinator to help TMIP handle what they need to do to award credit. The Texas Migrant Interstate Program also supports other services, such as the Texas Exemplary Recognition Program, the Texas Migrant Student Transfer Packet System, the out-of-state TAAS Testing Program, and Project SMART for curriculum dissemination.

In its work with the Texas Exemplary Recognition Program, TMIP selects the top ten students in the state (often they are the valedictorian or salutatorian of their entire class). Candidates must be migrant students who migrated during their high school years and have been assisted by the MEP. Each year TMIP receives over 250 applicants. Although just the top 10 are honored at the annual Texas Migrant Education Conference, all 250 are recognized in a book that is published and distributed to school counselors. The book is used to show other students that these students (as role models) can succeed; in this way, success for other migrant students becomes tangible. One student from Progreso migrated to seven states and still was able to be the salutatorian of her class, indicating that personal effort, supported by coordination initiatives, can be successful.

The Texas Migrant Student Transfer Packet System or, as it is often more commonly referred to, the "Texas Red Bag," is a relatively new service for TMIP. At first, the "red bag" was a temporary means of transferring student records when the MRSTS was eliminated. It was an actual red bag issued to migrant families to carry school records with them and had TMIP's toll-free 800 number on it if questions arose. During its early implementation, migrant educators in Texas soon recognized that the MSRTS might have had an unintended consequence: decreasing migrant parents' awareness of and active involvement in the record transfer process. Texas wanted all migrant parents to be more aware of this need and to take all the records with them. Therefore, a temporary solution was transformed into a system of educating and assisting parents to be responsible for requesting and bringing their children's academic records with them as they traveled.

The general idea for "transfer packets" is that parents or students will take the pertinent records with them, take out their records and add new records before they leave each school attendance area, as they move from state to state. The information contained on a student's records is intended to help with enrollment in school immediately upon arrival in the receiving state, to facilitate proper placement of the student in the right classes, to indicate where the student left off in his studies and what is needed for completing course credits, and to provide contact information if follow-up is needed to make credit accrual decisions. Currently the "red bag" is no longer used as districts provide parents with their own folders or boxes to hold student records.

There were two phases in the implementation of the project. In the first phase, all parents were informed that the MSRTS was no longer in operation and that they would need to use the transfer packet to exchange student information. This information was communicated through a video and also through trainer-of-trainer workshops for staff with migrant program responsibilities at all of the Education Service Centers (ESCs). These ESCs then provided information to parents in the school districts. In the second phase, TMIP put together a set of materials on the education system to empower parents to know their rights and what they need to do. Staff at TMIP did this because many schools do not access the NGS. Parents are provided the materials (i.e., *Migrant Parent's Resource Guide to Understanding the Educational System*) during locally scheduled training sessions. Districts have been asked to train all previously identified migrant parents over a multi-year period and then provide training for new parents only (this training is already in place within the valley). Data on how many parents have been trained has been sent to TMIP and is now being entered in NGS.

At present, the transfer packet has been in use in most of the states that share students with Texas. Currently, most districts in the valley accept information brought to the school in a transfer packet. Sometimes if the course name differs from the name of a course in that district, the school district may need to call the receiving state to confirm the appropriateness of the grade/credits accrued. Evaluation data is collected only on the number of parents trained.

The out-of-state Texas Assessment of Academic Skills (TAAS) test is the last new major project for TMIP. The Texas Assessment of Academic Skills measures the statewide curriculum in reading and mathematics at grades 3 through 8 and the exit level; in writing in grades 4, 8, and the exit level; and in science and social studies at grade 8. Satisfactory performance on the TAAS exit-level tests is prerequisite to a high school diploma. Persons with access to test materials must maintain and preserve the security and confidential integrity of the test.

In previous years, the TAAS was administered in March, and then in October. This timing meant that migrant students often missed both opportunities to take the TAAS. Ensuring that migrant students had sufficient opportunities to take the TAAS was important because test-taking experience helps students, particularly when they must pass the TAAS later in order to graduate from high school. Again, under the direction of the State Director of Migrant Education, TMIP was charged with supporting an out-of-state TAAS testing program to provide migrant students with additional opportunities to take the TAAS and to remove one more obstacle to graduation.

When the TAAS first became a part of Texas state policy, the state did not allow anyone outside the state to administer the test. In the first year (1992), TMIP staff and TAAS coordinators from local school districts visited different states and administered the test. At the time this study was conducted, a cooperative agreement has been signed by both Texas and any receiving state that wishes to administer the TAAS. Training to administer the TAAS is conducted at the National Migrant Education Conference. The training lasts 90 minutes to 2 hours—not a barrier for staff interested in acquiring this skill. Participants also receive copies of the forms, test guidelines, and study guides.

Texas Migrant Interstate Program staff provide approval to administer out-of-state TAAS tests through an interstate registration process with Summer migrant programs. States receiving migrant students prepare lists of students who are interested in taking the TAAS; TMIP then confirms that the students are eligible to take the TAAS (via school district or the Texas Education Agency's test processing center). If the student is not already on the database (thus confirming eligibility to take the test), TMIP calls the school district to check on the student's status to take the TAAS for the first time. To be eligible to take the TAAS, students should have completed their sophomore year in Texas and completed freshman English and Math. The Texas Migrant Interstate Program then sends the information and registration list to the local site, which tests on the designated date, returns the test roster to TMIP, and sends the test materials directly to Iowa City, Iowa to be scored.

In the first year 159 students were tested, and that number went up to 483. Currently that number is decreasing (238) because staff in Texas are doing a better job, the receiving states are getting better material to work with, and more students are passing the TAAS the first, second, or third time.

The Texas Migrant Interstate Program has a rich history of supporting interstate coordination initiatives. In the early 1980s, TMIP sent "interstaters" to upstream states to spend the Summer working as counselors with the students who arrived from Texas. The contacts made across the states proved helpful; these contacts formed a base for future efforts.

The TMIP has also worked too build awareness of the Migrant Education Program among Superintendents of Schools. This activity is supported annual by the Educational Service Center I. The Executive Director of Region I believed that unless the superintendent becomes committed to the success of the Migrant Education Program, the coordination among districts would not be supported at a level needed for staff to succeed. She has invited the 38 superintendents in the valley to visit at least once one of the states that receive the largest number of migrant students (i.e., Washington, Minnesota, Michigan, Ohio).

The TMIP staff is the core of its service delivery capabilities. They build relationships with both Texas school faculty and out-of-state migrant educators or district personnel. TMIP staff work with district and school personnel on a daily basis to work out the difficulties in helping migrant children to accrue credits, have grades consolidated, take the TAAS, and involve and empower parents—all efforts geared to help migrant students graduate from high school.

Summary of Texas Migrant Interstate Program (TMIP) Services. As described above, the TMIP offers comprehensive services to assist in the coordination of educational services for migrant students nationwide. Key services include:

- Conducting training about secondary credit accrual and graduation issues at national conferences, state conferences, and out-of-state conferences.
- Helping build relationships between educators in different districts and states via its conferences and telephone conference calls.
- Providing general advice to states about what students need to accomplish to graduate in Texas (especially the new graduation requirements and Texas Essential Knowledge and Skills).
- Working with school counselors to confirm what courses are needed by individual Texas students.
- Interpreting out-of-district student information for Texas districts.
- Supporting credit accrual via the "transfer packet."

- Using NGS as a tool to check on student information.
- Using mail/fax of documents to support credit accrual.
- Overseeing the out-of-state TAAS testing program.
- Disseminating contact materials (i.e., site directories)
- Promoting migrant student graduation through the Exemplary Migrant Student Project.
- Disseminating Project SMART Materials.
- Disseminating informational videos (e.g., the migrant experience).
- Conducting the parent training on the education system for some of the Education Service Centers.

Florida Migrant Interstate Project

The Florida Migrant Interstate Project (FMIP) is headquartered in Immokalee, Florida. It was initiated in 1992 and is funded through the Florida Department of Education as a resource center that coordinates activities for states and districts that send or receive Florida migrant students. The FMIP is the information hub for migrant education in Florida and maintains a paper file system of all migrant kids in the state. The FMIP's objectives are to:

- Increase the number and percent of Florida migrant students identified in Florida and in receiving states;
- Facilitate curriculum-matching between states;
- Serve as a resource center to the Florida Department of Education on inter-state coordination issues;
- Empower migrant parents to get them more involved in their children's school success.

Services provided by FMIP to meet these objectives include:

- Sharing education and health information with receiving states on Florida migrant students through the FMIP Newsletter, interstate meetings, and telephone/fax contacts;

- Conducting follow-up on interstate identification and recruitment issues;

- Providing training and technical assistance at local, state, regional, and national workshops;

- Assisting receiving states make direct contact with Florida home-base schools through the Florida Schools Directory and telephone/fax contacts;

- Coordinating curriculum-matching between states;

- Empowering parents to play a more active role in their children's education through information provided on two toll free telephone lines.

The annual Directory of Florida Contacts for Florida Home-based Migrant Students (the "Directory") is FMIP's cornerstone resource for both Florida districts and the receiving states. District staff use school contact information in the Directory to connect with a sending or receiving district. If necessary, districts can call FMIP on one of its 800 numbers for assistance. The FMIP will make the appropriate contacts directly and try to resolve the information request. Calls are evenly divided between requests for individual student information and for information on educational programs for migrant students. About two-thirds of the calls come from receiving districts in other states. Along with the Directory, the phone and the fax are the primary vehicles used by FMIP for sharing information. A print vehicle for disseminating information, the FMIP Newsletter, goes to all FMIP contacts throughout the nation, primarily to Michigan, Texas, and Florida.

The bilingual teacher exchange is an example of curriculum-matching and came about because of a request from Pennsylvania for help in placing bilingual teachers to work with Spanish-speaking migrant students in that state's Summer programs. The exchange expanded to include eight states. In summer 1998, FMIP sent 12 bilingual teachers to the eight states, including three to Pennsylvania. Language assistance now includes Haitian Creole along with Spanish. The FMIP pays for the teachers' round-trip air transportation, hotel lodging, and car rental for the four to six weeks of the Summer program. The receiving state pays the teachers' Summer salary.

The FMIP has maintained a close connection with ESCORT (originally the Eastern Stream Center on Resources and Training), which provides material resources to the FMIP through from headquarters in Oneonta, New York. ESCORT staff provide additional technical assistance to FMIP through its subcontract with the Comprehensive Center in Tampa operated by ETS. ESCORT also provides financial help to FMIP by funding its toll free 800 phone number parent hotlines. ESCORT has an informal relationship with FMIP; there is no formal plan or budgeted cooperative activity. Staff from both offices communicate weekly, and ESCORT staff represent Florida migrant education and FMIP at interstate conferences. They do this primarily by presenting "Florida 101" at in-service conferences. This consists of an overview of the services FMIP offers to migrant students and educators; use of the Florida Schools Directory; awareness of the Florida State Assessment and its test administration dates; Florida graduation requirements; and information on migrant advocacy.

Like the Texas Interstate Migrant Project, FMIP sponsors an annual interstate meeting that is broader in focus than that offered by TMIP. The FMIP maintains a K-12 focus, whereas Texas targets secondary credit accrual. The FMIP brings in the staff of receiver states operating Summer programs (principals, guidance counselors, teachers) so that they can meet with their Florida counterparts and become familiar with the sending districts.

Typically, 200 people attend the meeting, representing 15-17 states. The first day features a keynote speaker and breakout sessions in which attendees discuss interstate issues and concerns in migrant education such as block scheduling. The conference also highlights exhibit booths from the Florida districts where staff from receiving states can visit and become familiar with the originating districts. On the second and third days of the conference, staff from receiving states visit those Florida school districts who share migrant students with them. This is an opportunity to network, plan programs, and develop personal relationships among staff of the originating and receiving districts.

Instructional Technologies

Project SMART

Project SMART (Summer Migrants Access Resources through Technology) is a national distance learning instructional program that is broadcast via satellite from ESC-20 in San Antonio, for eight weeks over the Summer. This broadcast is targeted to Texas migrant students who live temporarily in other participating states around the country. Project SMART is

intended to help migrant students earn credits needed for high school graduation. The TMIP disseminates Project SMART materials; it also conducts workshops and presentations on SMART. Project SMART can be implemented in various ways, including site-based and home-based models.

In the "site-based model," exemplified in this study in Sidney, Montana, students participate interactively in a classroom setting with the SMART television and their local "SMART Partner" teachers who prepare the students for the instructional broadcast, facilitate interactions by telephone with the SMART television teacher, and conduct follow-up instruction and assessment. Alternatively, students can view the live instruction later on videotape or view a previously taped lesson. Only high school courses are offered for credit. One high school course is taught each Summer on a revolving basis. The videotapes offer students the opportunity to view the current course at a later time if they cannot attend class, or they can view a previously broadcast course if that fits their course accrual needs better.

The home-based SMART model is implemented for migrant students who remain over the summer in Texas. Migrant home visitors function as "SMART Partners" in this model. Expected outcome indicators for SMART include accrual of high school credits, grade promotion, and high school graduation.

The Educational Service Center-20 is the instructional delivery and support center for the Project SMART. Project SMART is funded by the Texas Education Agency through the state legislature using the Pharr-San Juan-Alamo ISD (PSJA) as its fiscal agent. The ESC-20 broadcasts SMART to 42 states, including Texas. More broadly, ESC-20 is a private non-profit organization with a separate board of directors and a distance learning focus. It operates the Star Schools consortium, for example, in conjunction with the State Education Agencies from Texas, Illinois, and North Carolina.

The ECS-20 became involved with distance learning in 1985 by developing the capability to deliver curricula to small schools in Texas who otherwise could not meet the added credit demands placed on them from curriculum restructuring in Texas at that time. The ESC-20 had the requisite distance learning infrastructure in place when first approached by the state migrant director to develop a distance learning curriculum for migrant education. The ECS-20 then submitted a proposal that the Texas Education Agency funded as a pilot project with Montana.

In 1993, a national advisory committee of migrant directors and practitioners recommended expanding Project SMART beyond the pilot phase. The Public Broadcasting Service (PBS) then picked up the broadcasts for national showing. With expanded funding, ESC-20 set about developing the SMART curriculum and its instructional delivery at the San Antonio site. The Summer broadcasts are designed to encourage secondary-level credit accrual in Texas and to offer Texas-based students with culturally relevant instruction while they are in another state over the Summer. Project SMART is also broadcast in Texas over the Summer as a supplemental home instruction program.

The ESC-20 controls the development and delivery of the SMART broadcasts but is not responsible for the selection and implementation of specific SMART models. It is important for local site staff to know how to match appropriate SMART models to the needs of the migrant students. One of the problems ESC-20 faces is the need to deliver onsite training on demand, including consultations on the models.

Project SMART began as a pilot project between Montana and Texas, but by 1998 it had grown to serve approximately 35,000 migrant students in 17 states. The operating cost per site is about $2,000 for the satellite dish, curriculum, and related materials.

PROJECT ESTRELLA

As described earlier in this volume, Project ESTRELLA supports interstate coordination through the use of laptop computers. It is one of six technology projects funded by the Office of Migrant Education and works with the Migrant Education Programs of Montana, Illinois, New York, and Texas, all of which offer evening programs in the Summer with instructional staff and components. Participating local sites in Texas are Pharr-San Juan-Alamo (PSJA), Weslaco, La Jolla, and Eagle Pass.

Project ESTRELLA provides the core curriculum and support systems to enhance the services offered through NovaNET. It relies on the participating states' direct instructional support through certified teachers. Summer programs make a commitment to find instructional personnel with appropriate areas of expertise to support the NovaNET courses.

Project ESTRELLA selects high school migrant students based on nominations from their school sites and the Summer sites in receiving states. Students are selected on the basis of

demonstrated dependability and likelihood of success, although they are not necessarily the most academically talented.

Students are allowed to work on only one NovaNET course at a time. This policy is intended to encourage completion of courses attempted, by removing the possibility of taking on too much and not completing the work.

ESTRELLA works with counselors at the students' high schools to determine which courses to offer. Priority is given to courses where the students have partial credit, to allow them to complete those courses. Priority is also given to courses students have failed in previous attempts, or where credit was not given for any reasons. They try to keep the students on track for graduation. The project intended to give priority to juniors and seniors, but currently, most participants are freshmen and sophomores. The project intends to work closely with seniors for post-secondary enrollment, for example, helping them with application information and writing the college entrance essay.

The ESTRELLA Interstate Student Coordinator works with school counselors to recruit student participants, trouble-shoots technical problems, and monitors student participation. The Coordinator monitors students' time on-line along with their coursework progress using data collected by the system. The Interstate Student Coordinator also works with counselors to ensure that credit is posted to transcripts. He continues to work with students even after they have returned to their home schools in Texas to monitor their progress and see if they still need to work on the Nova Net curriculum.

Each State uses ESTRELLA differently. New York's program operates through BOCES, and the state agencies are the partners in Montana and Texas. New York and Montana have contracts with Illinois. Texas does not have a contract but contributes in-kind support. Contracts specify that the states have primary responsibility for implementation within their jurisdictions. The contracts also specify unique partner responsibilities. BOCES oversees the cybermentors component, and Montana is responsible for professional development. The Texas Education Agency assists in liaison with the Texas districts.

For the cybermentors component, the Project ESTRELLA contracts with the University of the Incarnate Word in San Antonio, which has a service learning orientation and a special interest in minority students. Students at the university volunteer time as mentors for participating high school students. They maintain communication via e-mail and serve as role

models, letting the high school students know that college is possible for them. They provide information on college life and the campus experience, such as assistance with application processes and applications for financial aid. Many migrant students' families have no experience with college, so this personal contact is important for them. Project ESTRELLA supports a program assistant at the university to disseminate information, recruit mentors, and provide monthly training for the mentors.

The mentors have 24-hour computer lab access with e-mail provided through the university's system. Some of the mentors have laptops loaned through another migrant program. The high school students have e-mail through NovaNET.

Project ESTRELLA also includes a Visual Learning component, through the Polaroid Education Program. It emphasizes student writing and incorporation of visual images in writing. Student writing is published in Project ESTRELLA's newsletter; a recent issue featured three articles about recent floods in Eagle Pass, where some of the students live. The articles included poetry and photographs.

Project ESTRELLA also focuses on parents and attempts to involve them in their children's education. The Interstate Student Coordinator has taken the lead on this component. When migrant students express interest in Project ESTRELLA, parents are required to attend an orientation before their children will be considered for the project. At the orientation, the project's benefits are explained to parents, as well as their own responsibilities, such as providing enough time to their children to be on line.

After students are accepted to participate in the project, training is provided and laptops are distributed. Parents must sign a contract to notify the project of any problems; they must file a police report if the laptop is stolen. As part of the training, parents and other family members learn how to use the laptops. Ease with laptops is encouraged by the project so family members can model for younger children in the family. However, parents' main responsibility is to provide a home environment conducive to learning.

The project currently works with Global School Net on professional development and intends to submit a plan to the U.S. Office of Migrant Education. This component would bring people from upstream states for hands-on experience with the laptops and Office 97, to show them how to integrate the technology with their own teaching. It also will address methods of

working collaboratively among schools and with students. The training will be followed by on-line workshops and by presentations at selected state Migrant Education Conferences.

University of Texas (UT) Migrant Student Program

The University of Texas (UT) Migrant Student Program is an independent study option for students who have fallen behind in their schoolwork because of illness, work, or family moves; these students need a flexible way to earn high school credits. The UT Program allows students to study independently using an assigned study guide and text. An accredited UT teacher grades the completed lessons by mail and sends the student individualized written feedback on their lesson performance. The UT teacher is also available to the student through a tollfree 800 number for telephone conferences. The UT Program is funded by the Texas Education Agency (TEA) and offers 22 semester-length high school print-based courses and two computer-based courses (using IBMs, MacIntoshes, or laptops) in English language arts, mathematics, social studies, science, health, home economics, and Spanish. University of Texas Program courses are approved for credit by the Texas Education Agency and count toward Texas graduation requirements. Print-based and computer-based courses are also offered by UT in math and language arts to prepare students for the Texas Assessment of Academic Skills (TAAS). Six models are available for implementing the UT Migrant Student Program. They include:

- On-Site Grading
- Correspondence Courses
- Computer Courses
- Credit-by-Exam
- Partial Work
- Teleconferencing

For example, the correspondence model is typically combined with on-site grading by interstate migrant students. Texas-based migrant students who spent the summer of 1998 in Sidney, Montana, and needed credit-bearing English literature courses, enrolled in a University of Texas correspondence course which integrated the study of authentic literature with reading, writing, and communication skills. The Sidney teachers supervised and graded the students' UT English literature coursework over the summer. When these students traveled to other states for migrant work with their families in the Fall, the UT teachers took over the instructional supervision and grading. Outside of Texas in 1997, the UT correspondence model was used by

145 Texas-based migrant students in 8 states (Minnesota, Wisconsin, Montana, Michigan, Indiana, North Dakota, Ohio, and New York). Within Texas, the credit-by-exam and partial work models are most frequently used. In Eagle Pass, Texas, for example, migrant students can make up incomplete course work using the partial work approach. Alternatively, migrant students can earn high school course credits by passing a proficiency exam covering the appropriate essential knowledge and skills.

Portable Assisted Study Sequence (PASS).

The Portable Assisted Study Sequence (PASS) Program was developed in California in the late 1970s as an approach to secondary school dropout prevention. It has since been nationally recognized as an exemplary program by the U.S. Department of Education and adopted by over 30 states.

Florida began implementing PASS in 1993 after determining that PASS courses met Florida Public Education curriculum requirements. Florida's PASS Program offers 32 credit-bearing courses in art, health, language arts, life skills, mathematics, science, and social studies. These semester-length courses consist of five units of study; students must pass all five unit tests to get credit for the course. The PASS is a collection of semi-independent public education courses for students in grades 9-12. The program allows students to participate in high school classes and accumulate credits toward graduation through home-study or as they travel with their family for employment-related reasons.

In Florida, the dominant PASS model involves home-study for intra-state migrant students whose families tend to pull them out of school during the academic year for agricultural or fishing work with the family. This work takes place either in the local school district or involves a temporary move to another county in Florida. Florida's interstate migrant population is much smaller than its intra-state population. The PASS Program serves the needs of such students because it is a self-contained, portable curriculum. Migrant students can take PASS course materials with them, either as independent study at home or as a correspondence course on the road. A PASS Facilitating Teacher—in either the home school district or in the receiver school district—will meet with the migrant student on a weekly basis to monitor progress and to assess the student at appropriate intervals with a unit test. The Facilitating Teacher then sends the unit tests to the Florida PASS office to be scored. Once a course has been successfully completed, a Grade Report is sent by fax from the Florida PASS office to the national PASS office in California requesting credit for the course. Based on an interstate agreement between

Florida and California, PASS credits are awarded by Roosevelt High School in California and accepted by the student's home-base school in Florida. After receiving the transcript from California PASS, Florida PASS makes a copy for its files and the original to the appropriate district contact person to record.

Florida and Michigan began coordinating their PASS Programs in 1998 through a partnership between the Manatee County, Florida, and the Van Buren County, Michigan, public schools. The Florida PASS Program attempted to enroll Florida home-based migrant students in PASS prior to their departure for Michigan so the students could continue their Florida coursework while working with their families out-of-state. This partnership succeeded with several Manatee County students who continued to use Florida PASS materials while in Van Buren County over the summer of 1998.

Information Technologies

New Generation System

The New Generation System (NGS) was designed by a consortium of state migrant education programs in response to the unavailability of migrant student data following the discontinuation of MSRTS. Staff members from the consortium states are trained as trainers at the national conference to provide consortium states with in-state NGS coordination and expertise. The New Generation System is centralized and contains 400,000 records. All the data are resident in the server located in Austin, Texas. The system was designed as a central system (versus distributed system) to facilitate efficiency in system maintenance. All of the data are encrypted (32 bit key) for security purposes; sites are given access passwords. Because the system is centralized and Internet-based, NGS does not have to upload new versions to the site users. To access the system, all a user needs is a browser and a connection to the Internet.

This database consists of student records and does not yet contain "family" records. The system requires that each student have a unique identification number. The search system and "key" data items used to identify student records are not yet as sophisticated as the MSRTS. Because of the system's design, any change a user makes is available instantly to any other user.

Critical education data maintained on NGS includes:

- Secondary-level credits earned by the student

- Grade placement (and comments from staff)
- Immunization records
- Migrant contact information
- Required course of study (secondary-level)
- Type of course schedule (block, traditional, etc.)
- Medical alerts.

At any one time, 60-80 people may be on-line out of the current 1,000 users. There are two different levels of access. One is "read and write" only; this status precludes deleting records. The other is simply "read" (the same provisions against deleting records apply). Inactive records are archived. Users are able to print individual records or portions of a record. Full reports are sent by e-mail to users upon request. The "home-page" of NGS provides users with updates on the system and other relevant notices (e.g.., scheduled system shutdowns).

Major changes to the system are approved by the national and Texas advisory boards. Each of the other NGS member states is encouraged to have its own advisory board. Programmers hold final approval rights as well as the authority to set priorities (in case of excessive costs or complications). For example, a recently requested enhancement to the system included the ability to complete "mass" (batch) transactions.

Although consortium states cannot download NGS information directly to create a local database, files can be created for state use upon request. Staff in Texas's ESC-1 provide technical assistance and support to users, although the growing system needs and user demand for these services already may have exceeded current staff and resources. If NGS expands beyond its current membership, the support of a more robust technical support capability will be a pressing issue. The system costs each state approximately $2.72 per student per year.

To make NGS work better, more states need to be involved in the system. Currently, all the data on students is not complete because enrollments and withdrawals in non-member states are not entered on the system. Texas only enters the last qualifying move. And because many of the states are reluctant to give up the systems they have developed, further cooperation to improve the system remains problematic.

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